

Illinois U Library house + home

February 1953

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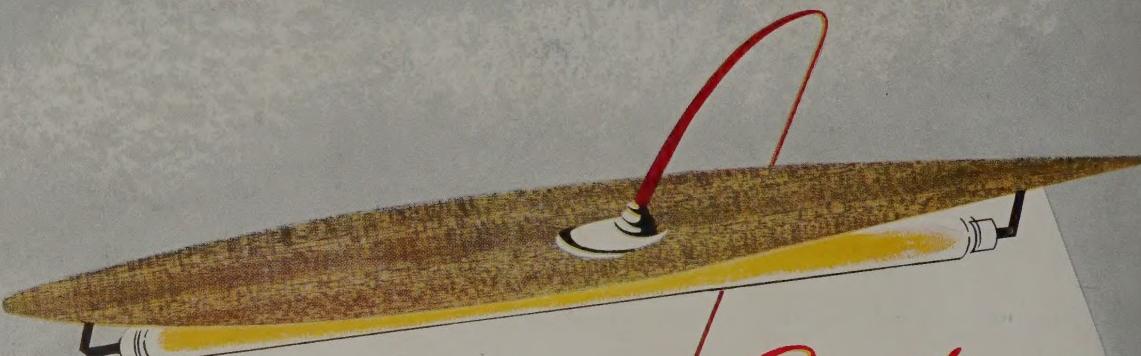
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house+home

February, 1953

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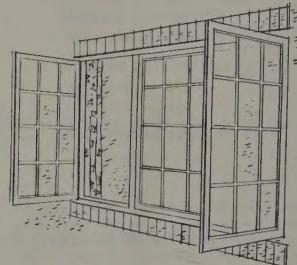
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the HOLE at the top..



s suited the Sioux just fine

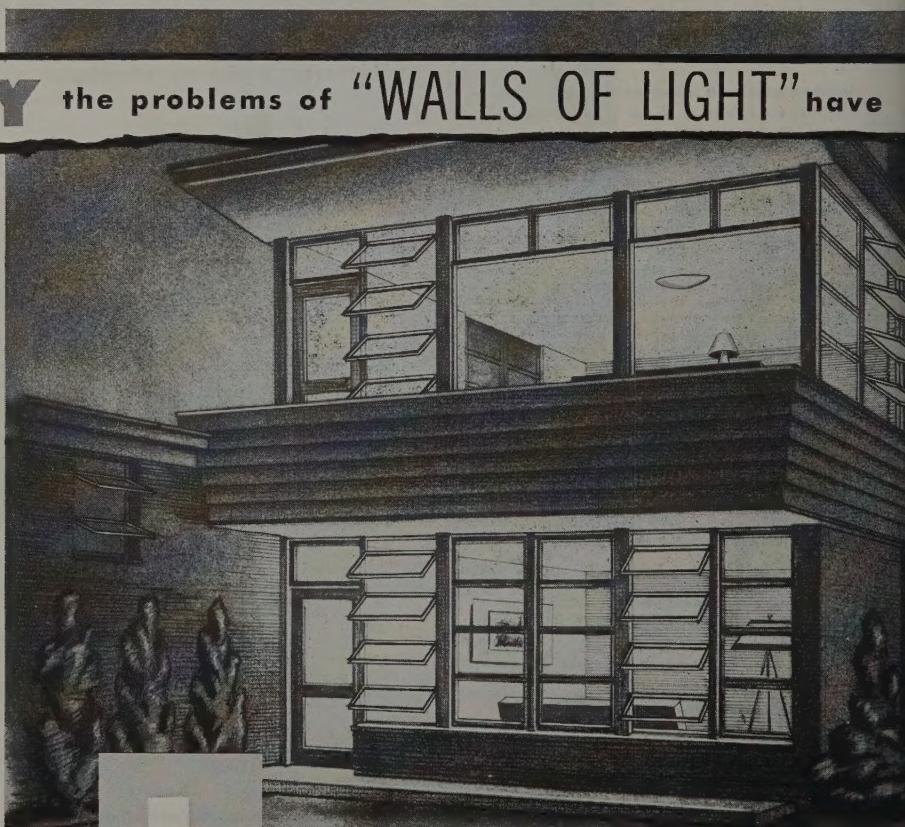
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NAILS
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What can building expect from the new Congress?

Would the Republican-controlled Congress take the private building industry's almost unanimous advice, kill rent controls and public housing at this session?

As Congress got down to work, it appeared that anybody who was counting on sudden death for the two controversial programs would be in for a surprise. One reason was the make-up of the Senate banking and currency committee—traditionally the men who influence housing laws most.

Toss-up decisions. Although Committee Chairman Homer R. Capehart (R, Ind.) has voted against both public housing and rent control, Sen. Irving Ives (R, N. Y.), a consistent supporter of both, became chairman of the subcommittee on housing and rent control which has first crack at housing laws. Ives was likely to become the deciding vote on such questions. The three other Republican subcommitteemen, Sens. Wallace F. Bennett of Utah, Barry

Goldwater of Arizona and J. Glenn Beall of Maryland, were regarded as opposed to public housing. But they were offset by Democrats Burnet Maybank of South Carolina, Paul Douglas of Illinois and John J. Sparkman of Alabama. All three have supported public housing and rent control, although Maybank sometimes carps at its never ending nature (see p. 41). In the full committee (split eight Republicans to seven Democrats) the vote of Ives might be offset by that of Sen. A. Willis Robertson (D, Va.), who usually opposes public housing. But in the Senate itself, public housing backers were confident of enough votes to keep their program about where it lies. The National Housing Conference, for instance, classified the upper chamber "on the basis of the record," as 48 for public housing, 28 against and 20 doubtful.

New faces. On both the Senate and House banking committees were many new faces (see cuts)—men that architects,

Snags over choosing a new HHF Administrator lead Ikemen to keep Ray Foley on the job, probably temporarily.

(pp. 104-105)

builders and realtors with convictions about housing legislation would want to know and cultivate. As had been expected under the time-honored seniority system, rotund Jesse P. Wolcott (R, Mich.), a practical conservative with a flare for untangling knotty finance and economic problems, emerged as chairman of the House banking committee. Added to his committee were seven Republicans regarded as orthodox on government housing and lending policies, and a lone Democrat. This brought the roster up to 29 members—two more than in the last Congress. The three-man margin for the Republicans (the same the Democrats had wangled) was more apparent than real, observers felt. It included Merlin Hull of Wisconsin, one of the last

NEW FACES IN THE CONGRESSIONAL COMMITTEES IN CHARGE OF MAJOR HOUSING LEGISLATION

Senate



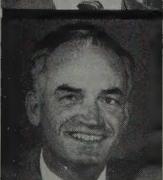
JAMES GLENN BEALL (R, Md.), 58, opposed public housing (except one House vote last year before running for Senate), earlier was in real estate and insurance.



FREDERICK G. PAYNE (R, Maine), is 54-yr-old freshman who just completed four years as his state's Governor, has no record of particular housing views.



PREScott BUSH (R, Conn.), 57, first termer, was partner in Brown Brothers Harriman, private bankers, resigned as director of CBS and Prudential Insurance Co.



BARRY GOLDWATER (R, Ariz.), 44, opposes public housing, wage, price and other controls. A popular department store owner dubbed "Mr. Arizona," he was on Phoenix city council.



HERBERT H. LEHMAN (D, NY), 74, is staunch public housing supporter, the same as his Republican NY co-Senator Irving M. Ives, already on banking-currency committee.

WESLEY A. D'EWART (R, Mont.), 63, voted to cut public housing to 5,000 units last year. A stockman and farmer, he served in legislature before '45 election to Congress.



WALTER MANN MUMMA (R, Penn.), 62, opposed cutting public housing to 5,000 units last year, has engaged in construction and builders supplies business since 1916.

WILLIAM E. McVEY (R, Ill.), 67, opposed public housing since election to Congress in 1950. He is former school executive and professor of education, Phi Beta Kappa.



D. BAILEY MERRILL (R, Ind.), 41, first termer, was Evansville attorney, World War II veteran. His views on housing problems and rent control have not been indicated.

CHARLES G. OAKMAN (R, Mich.), 50, first termer, was head of Oakman-Bayliss Realty Co. before entering politics as executive secretary to late Detroit Mayor.



EDGAR W. HIESTAND (R, Calif.), 64, a freshman in Congress, has had merchandising career, managing Sears Roebuck stores in Atlanta, Mobile and Los Angeles.

DOUGLAS R. STRINGFELLOW (R, Utah), 30, is a disabled veteran who served with OSS behind German lines, Ogden radio announcer. His housing views are not recorded.



MYRON V. GEORGE (R, Kan.), 53, voted for public housing cut-back last year, was state highway commission executive until resignation to run for Congress.

BARRATT O'HARA (D, Ill.), rejoins banking committee after missing a term by 1950 defeat, has said he "would rather lose than be real estate lobby stooge."



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holdovers of the Progressive party. On issues like public housing he usually lines up with the Democrats.

There was little doubt that the new congressional hierarchy intended to make short shrift of controls once it was squared away with the White House. The only real question was in the matter of timing. Chairman Wolcott wanted to let price and wage control die April 30. On rent control in noncritical areas, which also expires April 30, he was more cautious, was still considering a limited reprieve. His Senate conferee, Chairman Capehart, favored a staggered system of taking off controls. As Capehart saw it, there might be a standby need for all three economic controls for some time. To such plans "to stockpile bureaucrats," Chairman Wolcott had this answer: "Congress has the know-how to put controls on again in a jiffy, if the need arises."

Neither banking committee chairman was ready to get down to cases about a possible extension of materials allocation powers and the defense housing program, both of

which are due to end June 30. Rent control in critical areas will end April 30. Sentiment among ranking Republican members of both Committees indicated that all these programs may be given a limited continuance. Both Capehart and Wolcott were annoyed at how critical-area rent control was being rammed down the throats of communities that did not want it (H&H, Nov. '52, News). Both chairmen shook repriming fingers at the Office of Rent Stabilization, announced an inquiry.

Direct loan puzzle. One facet of the controversy over VA and FHA interest rates (see p. 104) that had both Congress and the administrative agencies stumped, involved direct VA home loans. VA has no legal discretion to alter the 4% interest. It would be inconsistent, argued officials, to raise the VA rate to 4½ or 4¾% for borrowing through commercial lenders but continue to grant direct 4% loans. The direct loan program expires June 30. Congress could give it an interest boost sooner. But both the majority and minor-

ity leaders of the House veterans committee introduced measures extending it exactly as is for two years.

One bill still a gleam in the eyes of its intended sponsor would set nerves of builders and lenders on edge. Representative Rains (D, Ala.) who chaired the House banking subcommittee last session that investigated shoddy construction under the FHA and VA programs, has announced that he will soon have a bill drafted requiring a builder's warranty on government backed loans. Rep. Clare E. Hoffman (R, Mich.), chairman of the House committee on expenditures in the executive department, introduced a bill shifting the VA home loan program over to the FHA, a transfer that would find strong backing from many homebuilders.

Among non-controversial bills being groomed for early action was one to give FHA's Title I repair and modernization loans a \$500 million shot in the arm. Expectable bills upping FHA's Title II and Title IX insurance ceiling faced little opposition, either.

Truman budget would boost FHA, public housing

Truman's \$78 billion parting budget blueprinted record spending for federal construction. It continued most of the government's freewheeling in housing. But if any building men thought the Eisenhower administration was going to junk it and send Congress its own detailed spending plans, Budget Director Joseph Dodge cut off their dream at the pockets. The most the new team could do would be to offer changes piecemeal to Congress. So far, there was no indication that housing and construction stood very high on the list for revisions.

In truth, few building men wanted a retrenchment ax wielded on building expenditures. Most of them welcomed such proposals as a \$1.5 billion hike in FHA's mortgage insurance ceiling for Title II and IX, a \$500 million expansion of the ceiling for FHA Title I modernization loans, and increases for government civil and military construction.

For FHA: quarter of income. Although FHA has always paid its own way, it must get annual permission to use part of its fees and insurance premiums to pay administrative expenses. The budget asked Congress to restore FHA's privilege of using up to 35% of collections to defray the costs of its field offices and the section of its Washington headquarters office handling claims, without formal approval each year. This would merely borrow-

ing a page from any well-run private insurance company. Actually, casualty insurance companies, which are said most nearly to resemble FHA, have used an average of 42% of income for operating expenses in the postwar years. The FHA, seeking only to offset field expenses against receipts for the new fiscal year, planned to use only 25%, or \$27,050,000.

For Washington administrative expenses, FHA asked \$5.9 million. Its allotment for the present fiscal year was \$4.9 million.

For BLS: \$95,000 more. Equally popular with the industry would be restoration of BLS' building statistics reports. Previous Congresses gave this essential pulse-taking so little money BLS was forced to gamble with accuracy in estimating housing starts in areas which do not issue building permits. BLS was slated to receive a \$95,000 increase for its housing and public construction fact finding, giving the bureau \$329,530 for fiscal 1954 compared to \$277,528 for 1953.

Some of Truman's requests seemed headed for the Congressional guillotine. One was \$100 million for temporary government-built housing in remote military and defense areas. The \$12½ million asked for the defense public housing for the rest of this fiscal year stood a better chance, though some trimming was expected. For the Office of HFA Administrator, Truman

asked \$4,550,000, a reduction of \$56,000 from 1952-3. For housing research, conducted through grants to colleges and private institutions, the outgoing regime asked a sizable increase—\$950,000 against \$528,000 in the last appropriation bill. If private industry prevailed, Congress would whack that sharply, too.

For public housing: surplus? As might be expected, Truman's fuzziest accounting involved public housing. The budget asserted there would be "substantial net receipts instead of expenditures for public housing!" Such legerdemain was based on hope that local housing authorities would sell substantial amounts of long-term bonds to private investors during fiscal 1954, use the proceeds to repay short-term loans from the federal government. Experienced finance men discounted the possibility of such wholesale absorption by private investors. But even if public housers get an unexpected break, PHA would still be liable for \$39.7 million in annual contributions next year for public housing projects already launched.

Truman asked no additional funds to expand FNMA's mortgage purchasing which so far has netted the government a modest profit. The budget calculated that FNMA would buy some 86,300 mortgages costing \$719 million in the new fiscal year by drawing on repayments and balances.

Chicago opens new housing court, shakes up building department in fight against blight

Most cities would be lucky to have one court dealing with housing problems. Last month Chicago opened its second one—an emergency building and neighborhood conservation court.

Chicagoans, whose consciousness of spreading blight has lately awakened, hoped the "landlords court" would help in the long war against slums. Chicago has had a housing and zoning court (part of its municipal court) for about 30 yrs. But it bogged down because it mixed serious cases with a plethora of minor ones and with zoning cases. Result: a backlog of hundreds of suits.

For repeaters. The new court is designed to deal with repeat offenders of fire, health and building laws. One indication that the new court meant business: Judge Joseph A. McGarry, a 20-yr. veteran of Chicago's bench was granting only one week continuances, time for defendants to arrange for counsel, rather than the 60- to 90-day adjournments common in the regular court presided over by Judge Norman N. Eiger, a political protégé of the law partner of Chicago boss Jake Arvey.

Day in court. "This court will never be unfair to landlords," said Judge McGarry on opening day, Jan. 12. But he added: "This court is set up to protect neighborhoods and people and to halt the spread and deterioration of slums." Then he took up a 15-case docket. Results: three fines, two warrants for arrest, eight postponements and two other delays because defendants had not been found.

Estrada Turner, owner of a 3-story apartment on the near South Side where the war on slums is focused, was fined \$60 for "maintaining a building that was unsafe, dangerous and hazardous" because some apartments had no direct fire exits, and he had installed solid doors between his flats instead of glass panel doors.

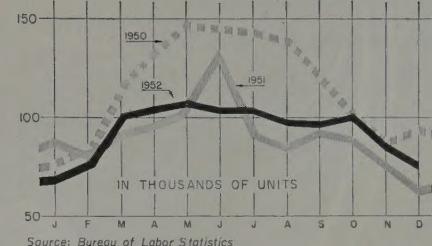
Morris Rose, owner of a building on Chicago's Southwest side (which dates from the 1850's), was fined \$100 and costs for illegally installing nonfire-resistant walls. Alibied Rose: "It's all because of the contractors, you can't get them to do the work..." Said the prosecutor: "He knows better."

Mrs. Carrie B. Brown was fined \$25 on a charge that the building she leases (from a lawyer) in the heart of Chicago's Negro belt did not have fire-resistant partitions. Mrs. Brown, it developed, subleases the building to a reliever. One of the warrants was for the arrest of a landlord charged with building an addition contrary to building permits, with walls out of plumb, sagging joints and the brick in some places only one-third of the required 12" thickness. The other was charged with remodeling a three-unit building into nine apartments without benefit of plans, drawings or permits, a sneak conversion.

Pressure of publicity. The new court began its work in the purifying atmosphere of intensive coverage by Chicago newspapers. Their publishers seemed to sense better than most of their breed that the long range profit of downtown stores (their own principal source of advertising) was deeply involved with preserving the heart of the city. Real estate men dedicated to slum rehabilitation said they hoped such publicity would give Chicago politicians enough added incentive to cooperate in the drive against firetraps. Without support of aldermen and ward committeemen, they warned, the second court could still flop.

The best hope that Chicago's new offensive against blight might succeed lay in broadening community support. For instance, the South East Neighborhood Council in the University of Chicago campus area planned to hire a "housing detective" to ferret out sneak conversions, help hustle offenders before Judge McGarry. A team of city health and building officials compiled a list of hazardous buildings, designated them public nuisances and asked city attorneys to sue owners to make extensive repairs or tear them down.

The city council, responding to recommendations of a Chicago "Little Hoover Commission," voted to reorganize the administrative and inspectional services of the city building department. The commission found the building department placidly waiting complaints before investigating old structures. Moreover, it charged, district inspectors and the bureau of housing inspection were not making enough

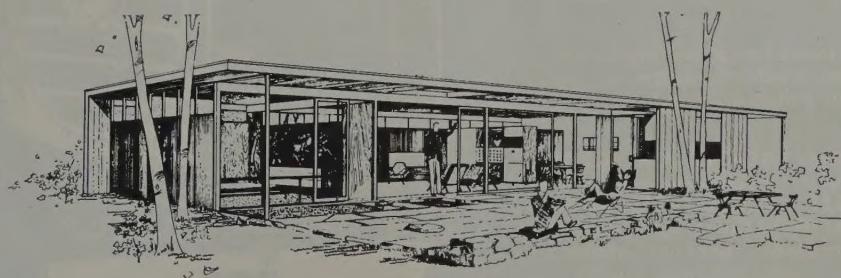


HOUSING STARTS reached 76,000 in December, giving 1952 a total of 1,131,000, according to preliminary BLS figures. Private starts rose 5% to 1,074,300 for the year (compared to '51) while public housing starts dropped 14,200 units to 57,000. Compared to the all-time peak in 1950, both '51 and '52 were down a fifth.

inspections. The reorganization set up district offices and files for the inspectors. Objective: cut down time lost traveling between city hall and outlying points.

Trade group campaigns. Trade organizations continued their efforts to stimulate an even wider attack on slums. At NAHB's Chicago convention NAREB's rehabilitation committee chairman, Harold S. Goodrich, warned: "The dose of public housing an individual community receives will be in inverse proportion to the number of units reconditioned or rehabilitated." The convention urged special mortgage provisions for rehabilitation work, pledged NAHB to carry on a "crusade" against blight (see p. 48).

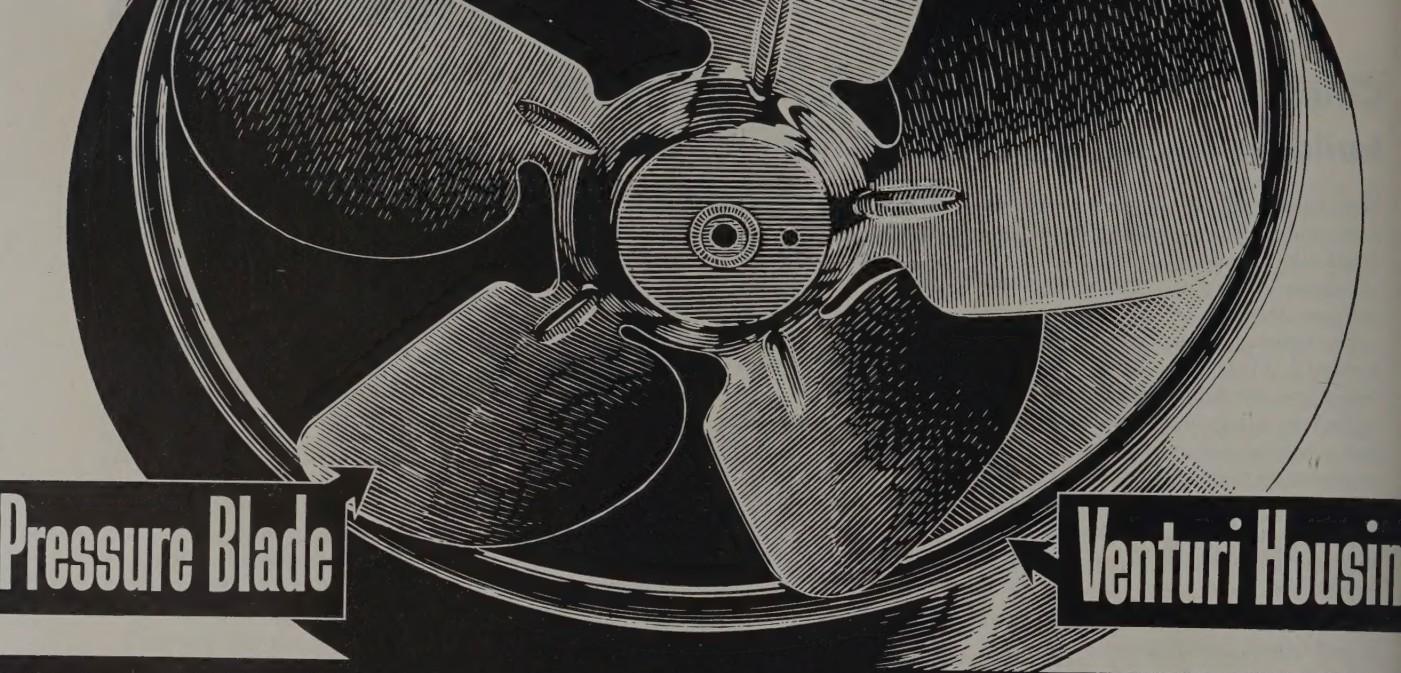
At a Washington conference, the Mortgage Bankers Assn. heard this warning from Chicago's Ferd Kramer: "Any city that stands for a breakdown in zoning, or the random conversion of houses and apartments to higher densities or lower uses, is writing its own death warrant...."



Home Show rejects its own prize house as too advanced

For the second year in a row, Sewell J. Mathre, 30, won the Indianapolis Home Show architectural contest, the first repeat winner in its 28 yrs. Simplicity, openness and flexibility of Mathre's plan most impressed the judges, who noted that the typical contestant's approach was "surprisingly negative" and timid. But Mathre's prize-winning house will not be built for the show, Apr. 10-19. Local newspapers said the

reasons were twofold: striking similarity to last year's model; the "advanced" concepts of the scheme, which "may be too far away from the accepted design ideas of this area." Instead, Home Show officials decided to build a "transitional model" which was entered in last year's contest, but won no prize. Mathre, whose prize was \$500, received his master's degree in architecture at Cranbrook Academy of Arts.



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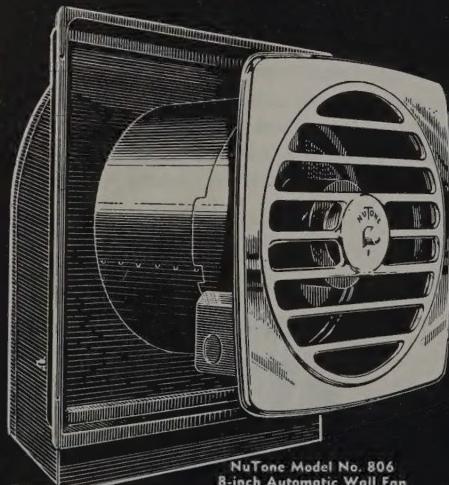
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First Trade Secrets houses attract record crowds

NAHB's Trade Secrets house unveiled in January issues of LIFE and HOUSE & HOME was well pointed at becoming the year's most influential house. Across the nation, it drew crowds reminiscent of the 1946 days of housing shortages, emulation by more and more builders and millions of dollars worth of goodwill for the housing industry.

Wallace Johnson's model in Memphis attracted an estimated 12,000 persons for its New Year's Day opening, a total of 200,000 visitors by Jan. 24. In Fort Worth, said Builder R. B. Billings, traffic was jammed for 11 blocks and the first-day surge of 18,000 people tore a storage wall door off its hinges. Reports from other cities:

► Andrew Place opened his South Bend, Ind. house Jan. 11. "People stood on line half an hour to get in. . . . Weekday visitors have been 100 to 200 daily, remarkable when you remember it's 'winter' out here."

► A realtor in Dayton, Ohio said in 30 years he "never saw crowds like it" when Alex Simms opened his model Jan. 11. People lined up for a block, prevented its closing until midnight. ► Leslie Hill in Dallas estimated the procession rolled through his model at about 700 an hour, "completely filled" it from noon past dark. Sales of nearby builders spurted, too.

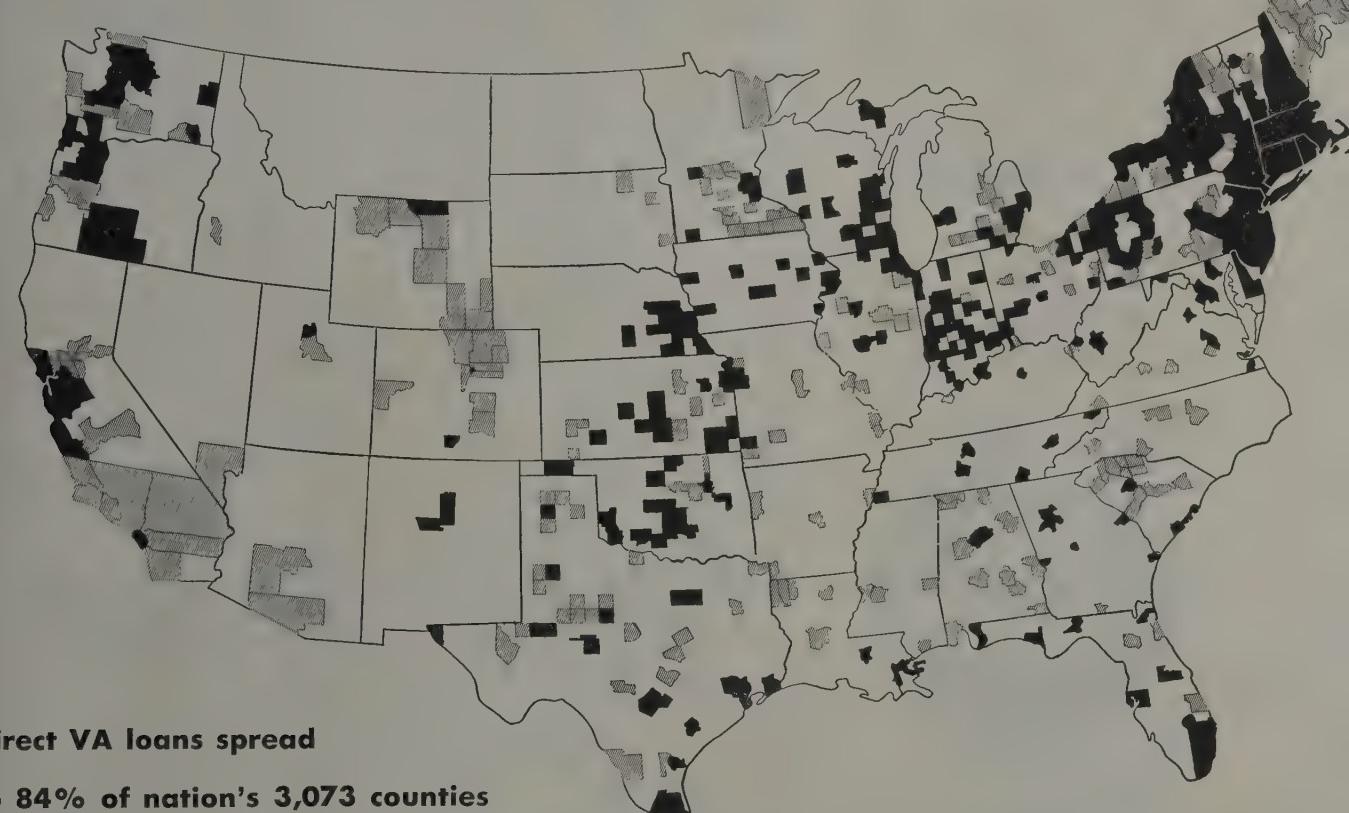
In the high-cost Dayton area, where \$5,000 lots made the house a \$25,000-\$30,000 deal instead of \$15,000 dwelling, Simms sold four in three weeks, had three or four more sales in negotiation. He called it "exceptionally good" for the Dayton market.

Bandwagon rush. Scores of builders who had not planned Trade Secrets houses were scrambling to get a set of plans. President Otto Nord of Fort Wayne's home builders said he would use it as the National Home Week model. Fifteen Cincinnati builders and others from Cleveland descended on Simms' Dayton model, and a Mansfield builder was already duplicating it.

New York studies starting Baltimore plan in Harlem

New York City took a half step toward rehabilitating Harlem tenement blocks on the Baltimore Plan. State Housing Commissioner Herman T. Stichman, seizing the initiative city officials and Manhattan businessmen lacked, announced savings banks had agreed to make mortgage loans for improvements, but with the nettlesome proviso that *all* owners on a block be required to rehabilitate their properties. Stichman reported the banks had contributed \$5,000 to survey which blocks to tackle first.

Most residents knew it was high time to start saving the nation's biggest city. A grand jury that probed the Brooklyn tenement fire that took seven lives last June (AF, July, '52) reported it was appalled at evidence that the city "is surely, but not slowly being permitted to deteriorate and decay. Slums are being created much faster than they are being eliminated."



Direct VA loans spread

to 84% of nation's 3,073 counties

In 1948 Congress gave the Veterans Administration power to boost interest on GI home loans from 4 to 4½%. In 1950 it authorized direct VA loans to veterans at 4% in areas which VA found lacked private funds at that rate.

Since then, VA officials have refused to increase the 4% GI rate, using the argument that 4% loans from private sources were not so scarce as to demand it. They have, however, certified to the widespread absence of 4% money by designating more than 2,600, or over 84% of the na-

tion's 3,073 counties as wholly or partially eligible for direct VA home loans. Also designated: all of Alaska, Puerto Rico and the Virgin Islands.

HOUSE & HOME mapped this spread of socialized lending from VA county eligibility lists revised through Jan. 21. Only the solid black areas are completely ineligible for direct VA mortgage loans. Most of them lie in the money-heavy East or in the largest metropolitan areas. Shaded areas denote counties where veterans can get direct loans from the VA except in par-

ticular cities or towns. But even in the greater portion of these counties, as well as all the rest of the country, the VA labels 4% private mortgage loans as unobtainable.

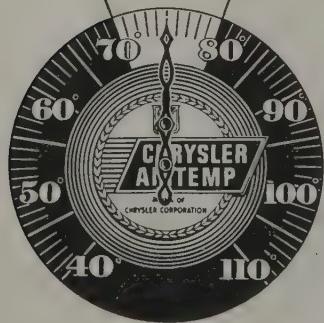
By last month, VA had arranged 32,662 direct loans totaling \$221 million (7,112 of them were still being processed). It was making efforts to sell its seasoned paper to private investors (at par) to get funds for more direct loans. But so far this had proved a flop. Only 1,110 loans, with a value of \$7.5 million, were sold.



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Suit attacks constitutionality of anti-Red oath in public housing; bonds hit money trouble

Six months after the law went on the books, public housing authorities across the nation last month were beginning to enforce the Gwinn amendment requiring a loyalty oath from tenants. Almost immediately, they ran into legal trouble.

In Newark, N. J. the American Civil Liberties Union filed a test suit charging the oath was unconstitutional, won a temporary order from a state judge restraining the Newark Housing Authority from evicting non-signing tenants.

Legless veteran. The case had enough emotional appeal to attract wide attention. Involved was a legless war veteran, James Kutcher, who is a member of the Socialist Workers party, one of the 200 organizations listed by the US Attorney General as subversive. The Gwinn amendment made membership in any such group, or refusal to swear to non-membership, ground for eviction from federally-aided public housing. Kutcher's dismissal as a VA clerk under the federal loyalty program was reversed last Oct. by the US Circuit Court of Appeals, which held he could not be fired solely because of his affiliation. The court left Kutcher's suspension in effect, pending a VA finding on his loyalty.

Of the Newark Authority's 3,019 family heads required to take the oath, only 11 (including two officials of the New Jersey Communist Party) had refused to sign, been given eviction notices when the test suit was filed. That was about 0.3%. Most observers expected the percentage of non-signers to run under 1% everywhere.

Tight money headaches. The Public Housing Administration's fifth offering of permanent local authority bonds Jan. 21 bumped into higher interest rates. In an effort to pare the interest, PHA cut the term from 40 to 30 years, offered only 70% of their borrowing needs to private investors. Despite such efforts, the \$127 million in income tax-exempt bonds brought an average 2.396% interest, only a slight drop from last September's average rate of 2.544%. For the other 30%, public housers tapped the US Treasury, paid 2.5%. The Treasury cannot borrow for 30 years at 2.5% on this winter's money market. If the Treasury deal was permanent financing, it was a new, substantial subsidy.

In part, the plight of public housing bonds stemmed from the Gwinn amendment. From the law, a proviso threatening the validity of the government's guarantee of payments was removed only at the last

minute, thus jolting investor confidence. Recently, outstanding 30 to 40 year housing authority bonds have sold at prices yielding 2.7%—equivalent to more than 5.5% return to corporate investors in the 52% tax bracket and within $\frac{1}{8}$ of a point of the yield obtainable on outstanding fully-taxable 20-year Treasuries.

US to speed AEC, Lanham, Greenbelt housing disposal

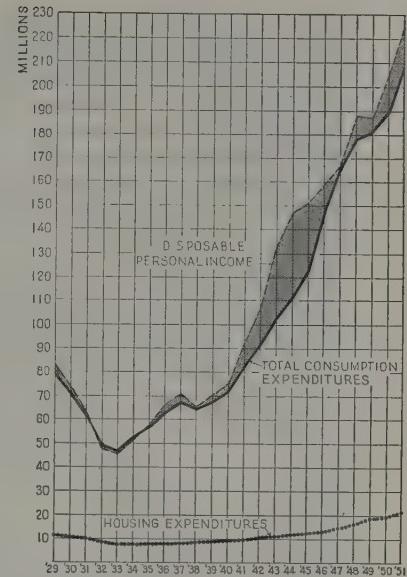
On three fronts, the government moved closer last month toward getting itself out of the housing business.

1. At Oak Ridge, Tenn. the Atomic Energy Commission prepared to allow the first construction of privately-owned homes in the federally-owned atom city. The homes will go on leased plots. AEC was hopeful that Congress would let it sell more than 8,000 government houses and apartments. It considers them a headache to operate. As groundwork, the Census Bureau polled AEC's 8,300 renters. Results: 60% said homes should be privately owned, 30% said government owned, 10% had no answer. But 64% thought prices announced for properties too high.

2. The much-postponed liquidation of World War II Lanham Act projects and old New Deal "Green" towns, picked up speed. H.H. Administrator Foley authorized disposal of 110,000 permanent and temporary Lanham Act units that were "frozen" for defense use in July, 1950. He retained emergency federal control over only the last 173,000 of the original 943,000 units. About 26,400 of the permanent units freed for disposal will be transferred to local public housing authorities. The remaining permanent units will be sold with preference to veterans and occupants.

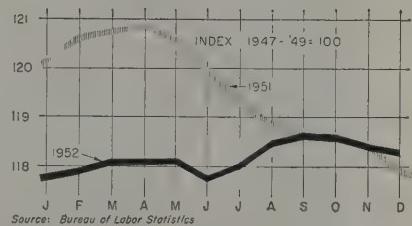
In December PHA sold a 500-family non-frozen Lanham Act project in Camden, N. J. to a tenants' cooperative for \$1 million. In San Diego, it sold the Linda Vista development's commercial facilities for \$2 million. 3. Sale of the shopping center and 2,284 acres of surplus land from the old Farm Security Administration Greendale project near Milwaukee was held up when PHA rejected a high bid of \$738,600 as inadequate. But near Washington the veterans cooperative that bought the 1,579 houses of Greenbelt, Md. last fall went a step farther, purchased another 806 acres of undeveloped land from the government, announced plans for private enterprise construction of 400 more houses from \$10,000 to \$20,000.

GRAPHS OF THE MONTH

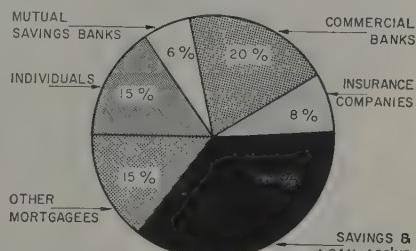


Source: Department of Commerce

HOUSING EXPENDITURES for the entire nation rose \$10.3 billion a year between 1929 and 1951, statisticians found. But total consumer expenditures soared \$129.2 billion, disposable personal income (after taxes) \$142.4 billion. Thus housing's slice of consumer spending shrank from 14.5% to 10.5%. It dropped from 13.8% to 9.7% of disposable income. Even if rent control were eliminated completely, no one expected housing outlays to approach anywhere near the pre-1940 share of the consumer dollar.



MATERIALS PRICES as indexed by BLS dropped from 118.4 in Nov., to 118.3 in Dec., rounding out a stable year with the high and low readings never more than one point apart.



Source: Federal Home Loan Bank

WHO BOUGHT '52 MORTGAGES: Savings and loan associations again financed more home mortgages in 1952 than any other lender group. Their share rose from 32.3% in 1951 to 36% last year. Life insurance companies, which found industrial bond yields more inviting than frozen interest rates on FHA and VA loans, slid from 9.8% to 8%.

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Vacancies in defense housing worry builders; sponsor reports project in Texas 98% empty

After a year and a half of frustration over the slow pace of defense housing construction, builders found the tables turning. In at least a dozen of the nation's 206 defense housing areas, financially-ruinous vacancies had appeared in completed projects. Ironically, the problem was worst in parts of southwest where builders had put up defense housing fastest.

Almost everywhere, slippages and shortfalls in the defense program or changes in military plans were to blame. Part of the awful truth was that when the defense program was cut back a year ago, nobody bothered to see that defense housing was trimmed accordingly. In the Canton-Massillon, Ohio, defense area (established only last October), HHFA now cancelled the entire 750 rental unit program, breathed a sigh of relief that none of the houses were started yet. The official explanation: there would not be as many defense workers coming into the area as officials had thought.

Consolation for planners. Assistant HHF Administrator Neal Hardy insisted serious vacancies were usually temporary. Besides, he said, only 1½% of the country's 97,907 programmed units lay empty. But those 1,500-odd vacancies were more than 5% of the 27,815 units actually completed. And the average was no consolation to builders like J. A. Maberry of Dallas, who found his 40-unit Title IX rental project near Fort Hood 98% vacant last month. Reason: rejuggling of training schedules had cut the normal troop complement of 15,000 down to 3,000. They were living in Wherry Act projects.

It was small comfort to C. V. "Cotton" Barnes that his Bralei Homes, Inc. won an NAHB award of merit for its defense housing projects at Pine Bluff and Benton, Ark. (see cuts). At Benton, 50 of 82 duplex units were vacant on Jan. 27. Reason: Aluminum Ore Co., a subsidiary of Alcoa, had delayed construction of a new alumina plant and decided to hire less in-migrants, more local residents (who cannot qualify for defense housing).

58 homes, one tenant. At Pine Bluff, there was only one tenant for the 58 out of 150 detached rental homes completed (the rest will be finished this month). Despite a display advertising campaign in nearby Little Rock newspapers, Barnes said: "We have yet to receive an inquiry from an eligible defense worker." The Pine Bluff trouble, said Barnes, was a slow down in

schedules for ammunition production at the Army arsenal, plus a series of strikes which delayed construction there. If the prize winning projects stay as vacant as they are, it could easily cost Bralei Homes \$50,000 by the end of the year.

Some other problem areas, cited by NAHB's First Vice President R. G. Hughes:

- Hutchinson, Kan., where 200 completed units were vacant.
- Bremerton, Wash., which had 50% vacancy in defense housing last September, and still has 25% vacancy.
- Camp McCoy, Wisc., deactivated on Feb. 1, threatening big vacancies in a project which had been fully occupied.

Despite Bralei's problems, Barnes viewed the snafu philosophically last month. Said he: "When you have a planned economy—and that's what we're talking about in defense housing—you just can't foresee all the answers in advance." As it has in similar cases, FHA was preparing to waive payment of mortgage principal during the vacancy crisis. (But by law, FHA cannot waive interest payments, which account for about \$60 out of every \$85 in the first year of a mortgage).

Checks and balances. For builders who might face costly vacancies in defense rental housing, Builder Tom Coogan, now chief of the armed forces housing agency, had a friendly word of advice during NAHB's convention: "Mix a little business judgment with your eagerness to build."

You're much safer being a little late with the houses than taking the risk of vacancies . . . FHA slowed us down in some communities and we're grateful now they did. If we'd gone ahead at full steam we'd be in terrible shape now."

Coogan unveiled another phase of the trouble: "Builders kick at 20% vacancies. The military reply the housing is substandard...." To resolve such disputes, Coogan said he was urging the Defense Dept. to create five-member committees in each military area to report *directly* to the Pentagon on housing needs. Suggested membership: a builder, a realtor, an FHA man, a military representative, and a "public interest" representative, perhaps from the local chamber of commerce.

End in sight? The vacancy problem seemed likely to bolster arguments for letting the Defense Housing Act die when it expires June 30. Assistant HHFA Chief Hardy told NAHB convention-goers last month that it was "unlikely" that anything but "modest" additions to the program would be made, mostly small numbers of houses for military bases. NAHB conventionees urged the program be kept on a standby basis.

If Congress kills Truman's budget request for \$100 million for public defense housing (as it likely will), a standby program (workable in most but not all areas) would not necessarily cost taxpayers anything. The recipe: extend Fanny May's advance takeout authority another year to guarantee financing; extend FHA's Title VIII and IX. At most, these only involve the government in contingent liabilities.

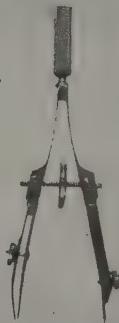
Photos: T. Harding Jr.



PRIZEWINNING EMPTY HOUSING: An NAHB Award of Merit went to Bralei Homes Inc. of North Little Rock for this defense housing project of 82 duplex units at Benton, Ark. Two bedroom apartments (750 sq. ft.) rent for \$55 a month, \$5 under the HHFA-imposed ceiling. At the end of January, 32 units were vacant—about the same rate suffered by two other projects nearby.



A second NAHB Award of Merit went to Bralei Homes for this defense housing project at Pine Bluff, Ark. designed by Architect Yandell Johnson. It includes two bedroom homes (758 sq. ft. plus 40' storage, no garage) at \$60 a month rent, two-bedroom homes 850 sq. ft. plus 40' storage, carport at \$70 a month, and three bedroom homes for \$80 a month. Bralei had found only one tenant.



Approved by the Committee on
Competitions of the
American Institute of Architects

Professional Adviser,
John Kewell, A.I.A.

Competition closes 5 P.M.
Monday, April 27th, 1953

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Los Angeles*
*Henry L. Wright, A.I.A.
Los Angeles*
*A. J. Del Bianco, architect
Chicago*
*Hunt Lewis, industrial designer
Pasadena*
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Macy's quits kitchen floor sales: builders have market

So many builders included modern hard-surfaced kitchen floors in their homes that department store business suffered. Last month, Macy's in New York discontinued selling hard surface floor coverings, abandoned the relatively small replacement business to neighborhood specialty stores.

Small Homes Council tests show cry for more space

Three years ago, the American Public Health Association's committee on the hygiene of housing computed the minimum space requirements "which without extravagance will make physical and emotional health possible." For a family of four, the figure was 1,150 sq. ft. excluding space for laundry or repairs.

Last month, the University of Illinois' Small Homes Council issued its first findings from a year's occupancy of its "space laboratory" house—partly financed by \$55,000 of HHFA's research money. The results seemed to reinforce the earlier conclusions.

The "space laboratory" house had movable walls and flexible plumbing connections. So the family living in it tested a new floor plan every month. Two similar families (father, mother, son and daughter) tried eight variations, all arranged within an area 24' x 36' (864 sq. ft.). Every time they complained rooms were either missing or too small. And if one requirement was satisfied (e.g. a third bedroom, which both families thought essential), then another suffered.

The university drew no broad conclusions in the first report (presented at its eighth annual short course for builders), for two families testing the same plan often reacted differently. In this there was a lesson too. For example, the first family consistently preferred dual dining spaces, one in the kitchen for routine meals, and another in a dinette or living-dining area for meals with guests. The second family, depending on the plan, was content with a single dining space in either the kitchen or dinette, was also satisfied by the dual arrangement preferred by the first family.

Significantly, both families at various times missed a basement for recreation, for bulk and dead storage, for laundry. At one stage one mother asked for a basement "utility room," including laundry facilities. Given a basement laundry, she called it "worst feature" of the house. Experts thought it was not the basement the families pined for, but the missing 300 sq. ft. of space they sensed they needed.

Prefab institute chief envisions future homes of lightweight panels, reinforced plastics

At the New York meeting of the American Society of Mechanical Engineers, President John C. Taylor Jr. of the Prefabricated Home Manufacturers' Institute and of American Homes Inc. described his version of the lightweight prefab home of tomorrow—no more like today's houses "than the automobile seats in your car resemble the buggy seats of 1900."

Taylor's house would have only 13 pieces for floor, walls and roof. The heaviest would weigh little more than 1,000 lbs. Thus all could be cheaply loaded and assembled by hand.

To pare cost, cut weight. Weight and time are two of the greatest construction expenses future prefabrication will master, Taylor forecast. Erecting today's 700 to 720 sq. ft. four-room house around New York may take two or three months, involve 21,000 ton miles of transportation. He thought the house of the future could be completed on the site by unskilled labor in only two or three days. Laminated panels, perhaps with plastic studs, would make immense savings in weight and thus in transportation costs. Taylor's specifications for lightweight, easy-to-ship and easy-to-handle panels required for a 24' x 32' dwelling:

► Three 8' x 32' floor pieces rigid and strong enough to meet code requirements, yet weighing

not more than 4 lbs. per sq. ft. (or not over 1,024 lbs. each).

► Four exterior walls, maximum 8' x 32', weighing not over 3 lbs. per sq. ft. (maximum 768 lbs.).

► Not more than four roof sections, weighing from 3 to 3½ lbs. per sq. ft. (plus two gables).

► Room-sized interior partitions and large ceiling pieces weighing not over 2 lbs. per sq. ft. (maximum about 500 lbs.).

All panels would be complete with windows and doorways, fully insulated where necessary, wired for electricity, cut for plumbing and equipment installation; completely finished except for a final paint coat.

Pilot model. When you define a problem, it is 75% licked, said Taylor. It will be no easy job, but he said engineers should be able to devise a panel to suit specifications like these: "An exterior wall, for example, made of two sheets of material, one the interior and the other the exterior finish. Between the two, reinforcing or strength-giving material of molded plastic variety, and, if possible, a plastic stud in place of a wood member."

American Houses was already experimenting with such side-wall pieces and a reinforced plastic floor, said Taylor. Results were so promising his firm planned to erect a pilot house this spring. Marketing, however, was several years away.

Rent control ended in 8 critical defense areas; Ike would scrap all regular curbs

Eight cities escaped last month from rent controls imposed because of the defense program. The Office of Defense Mobilization reversed itself on two more of last September's hasty-judgment impositions of critical defense area rent control on cities that favored freedom (H&H, Nov. '52). It decertified Canton-Massillon, Ohio and Sioux City, Iowa, for rent control. (In Canton-Massillon, the government also canceled the 750 unit defense housing program in the first action of its kind since Korea.) Explained ODM: new studies showed in-migration of defense workers would not be as great as anticipated. This was the same excuse it gave in December for decertifying Youngstown, Ohio and Bay City, Mich. Two other areas of much longer-standing defense rent control were also freed. They were: Fremont-Wahoo, Neb., labeled critical July 3, 1952, and Brazoria County, Tex., Sept. 14, 1951. Four more cities freed themselves by voting

to nullify the ODM rent control designation: Milwaukee, Evansville, Ind., and Sea Bright and Fair Haven, N. J.

Swimming against the tide, lame duck Rent Stabilization Director James McL. Henderson urged that all existing federal rent controls be continued to June 30, 1954, instead of being allowed to die April 30. He also asked Congress to ban local cancellation of federally imposed rent control. Chances were slim that Congress would do either. More likely it would adopt President Eisenhower's somewhat vague recommendation for decontrol except where "serious housing shortages exist . . . chiefly the so-called defense areas." The President would keep controls until state legislatures have time to pass rent control laws if they choose. Gov. Dewey and the Republican legislature seemed likely to extend New York's state law beyond June 30, probably allow landlords a few fringe rent increases.

NAHB CONVENTION urges trade-in homes to restores \$16,000 mortgage

Mike Shea



MORTGAGE PANEL In Conrad Hilton hotel's gilded ballroom heard HHFA Administrator Raymond M. Foley (standing) predict a million or more house year. Said he: "We have all the potentials we need to solve the housing problem of the American people—the vast majority of it by private enterprise. But I'd like to have private enterprise realize that much government aid is necessary."

For almost the first time in its 12 yr. life, the National Association of Home Builders found no immediate crisis imperiling its members' business. Gone were the materials shortages of war, postwar and Korea re-mobilization. Gone were credit controls. Gone from Washington was the Democratic administration, supplanted by a Republican regime dedicated to a "go slow" approach in changing housing policies. Left in Washington were lame duck housing administrators, including a mellow, franker Ray Foley of HHFA and in Walter Greene an FHA commissioner as amiable and downright cooperative as had confronted the industry in a long time.

Record turnout. In that setting, NAHB's 9th annual convention Jan. 18-22 in Chicago (which drew a record 18,000 registrants, 375 exhibits) reflected both optimism and the increasing maturity of America's newest industry. Instead of worrying about what the government might do next, builders displayed concern with basic principles—new sales and technical methods, better design, new materials. A panel on how to sell houses proved so popular that 200 standees spilled into the corridor outside the meeting room. "We can continue to build a million homes a year," said retiring President Alan Brockbank, "but we must inject new (sales techniques) to do it.... You can't just take orders any more."



NEW OFFICERS, elected by NAHB directors, pose for their first portrait. L. to r.: First Vice Pres. R. G. Hughes, Second Vice Pres. Nicholas Molnar, President Emanuel M. Spiegel, Treasurer Paul Burkhard, Secretary V. O. Stringfellow.



CONVENTION EXHIBITS are opened by retiring President Alan Brockbank and son, flanked (l) by Convention Chairman Joseph Haverstick and (r) Convention Director Paul Van Auken.

keep volume high, pledges 'crusade' against slums, cheers as FHA imit, elects Manny Spiegel president, asks VA, FHA interest rate boost

Adopting an idea broached last fall by Prefabber John C. Taylor Jr., Brockbank urged more builders to encourage customers to trade in an old house—just like an old jalopy—in part payment for a new one. Builders should then go into the remodeling business, he suggested. Emphasizing the parallel with the auto business, Brockbank foresaw builders successively trading reconditioned houses for poorer, older ones until "eventually we get down to slums." Said he: "I realize autos are on wheels and houses are on land. But when builders learn what auto dealers had to learn, they will revolutionize the home-building industry."

To increase the volume of trade-in reconditioned houses, NAHB suggested that the government create a "special mortgage finance vehicle" (also adaptable for urban redevelopment projects). Many a builder thought this should include a decision by FHA before reconditioning starts as to how much mortgage it would underwrite on a house after it is rehabilitated.

'Bound to be good.' Builders from all parts of the nation reported housing sales were sharing the nation's "confidence boom" touched off by Eisenhower's election. Typical was the comment of Irving M. Newman of East Meadow, N. Y., who built 240 homes last year, expected to put up from 400 to 500 this year: "When it's

good in January—and it has been very good for sales—it's bound to be a good year all the way." Except in high cost brackets and a few overbuilt defense areas, hardly a builder interviewed by *HOUSE & HOME*'s editorial staff of six covering the convention said he was planning to cut back '53 production for lack of confidence he could sell the output.

Air conditioning would play a bigger and bigger role in merchandising. NAHB surveyed 255 prominent builders in 30 states, found nearly 40% of them (104) would offer air conditioned homes this year. Leading builders urged Producers Council manufacturers to give them new products to stir sales still more. Said Alex Simms of Dayton: "I want lighting fixtures recessed into the ceiling before you put up dry wall so you can spray paint around them. We need a slab we can pour at 10 below. We need a square water heater with pipes in front, a washer and dryer with square ends so they fit the rest of the cabinets." Said Dave Slipher of Los Angeles: "We need a bath tub flanged at the flat end so no seal is needed to keep water out. We need a larger medicine cabinet with a locked compartment." Said Martin Bartling of Knoxville: "We need new materials for storage walls to get prices down. Door manufacturers should integrate the door and storage wall."

Mortgage squeeze. Two professional analysts shared builder optimism about the '53 outlook. BLS Commissioner Ewan Clauge forecast between a million and 1.1 million starts, and continued steady material prices although he said competition of other materials may drive down lumber prices "a bit." Economist Miles L. Colean said he would not be surprised if home-building exceeds the 1.2 million a year rate for the next few months, doubted that the GOP administration would seize such an occasion to reimpose Reg. X. Colean warned: "If houses are started now at a rate to strain the money supply later on, a disrupted market could result. Then increased costs, slow sales and excess inventories could result in a decline" in starts during the last half of the year. He predicted no easing in the tight mortgage funds until late in the year, if then.

FHA ceiling raised. One thing that would help keep housing at full gallop was FHA's action in restoring its maximum mortgage insurance under Sec. 203 to the legal limit of \$16,000. Since Sept. 16, housing officials had held the ceiling to \$14,000 in a much-criticized (as needless) anti-inflation measure. Illustrative of FHA's new spirit of independence, Commissioner Walter Greene made the announcement personally before an applauding mortgage panel, rather than via a press release.



KEY TO CHICAGO was given President Brockbank by shapely Jo Hoppe, the current "Miss Chicago."

CROWD VIEWED the record 375 exhibits set up by 241 manufacturers from early 'til late. Model prefabs called attention to full-sized exhibit prefabs erected outside hotel by National Homes and Gunnison.

Archie Lieberman



LAND PLANNING Committee Chairman Al Balch (r) points to displays of seven developments accorded awards for community and site planning. Judges said Cape Cod, Georgian and "extreme modern" homes are "gradually disappearing."

NAHB CONVENTION (cont'd.)

Policy for '53. Setting its policy course for the year, NAHB called for extensive changes in FHA rules "to conform to today's depreciated dollar." Chief demand: a big cut in down payments on homes priced around \$12,000. "Is it fair," cried incoming President Manny Spiegel, "to ask the buyer of a \$12,000 house to pay 20% down when the \$6,000 house purchaser needs only 10%? The typical modest home in 1940 cost about \$6,000. Today, inflation forces the same house to sell for about \$12,000. We believe the down-payment restrictions discriminate against our middle income families." NAHB also:

► Urged restoration of the legal amortization limit on mortgages—25 years for FHA, 30 for VA, longer pay-off periods for lower cost housing.
► Urged that FHA and VA interest rates be allowed to "rise to reflect actual mortgage market conditions."

► Asked creation of an advisory board of builders and lenders for Fanny May and urged that Fanny May's "one-for-one" plan (just extended for another three months) be enacted into law with prior commitment power.

► Begged FHA to revise its valuation procedures (especially on vacancy and capitalization rates) to make its low-rent housing Sec. 207 work better.

► Declared a national "crusade" for enforcement of local sanitation and health codes to help repair slums (see p. 39).

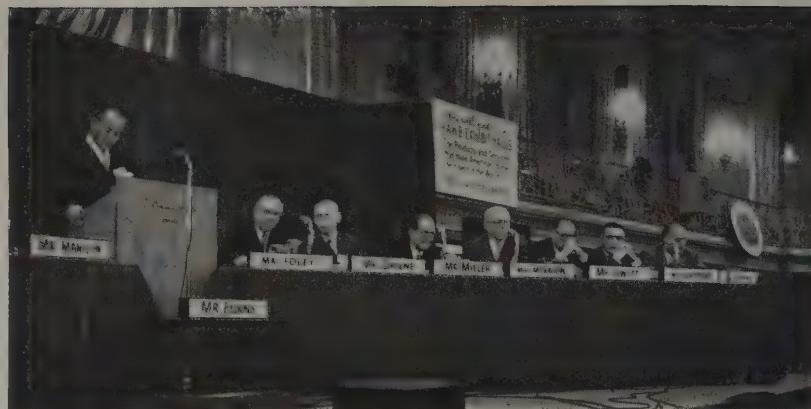
► Urged Congress to kill all federal controls on credit, materials, wages, prices and rents, not even extend them on a standby basis.

► Called for a review of the entire concept of public housing before any more funds are spent on it, declared families unable to pay economic rents could be "adequately housed" faster and cheaper through locally-financed rent assistance. Occupancy of existing public housing should be held to "neediest of the needy," said NAHB.

Warning from labor. Other noteworthy developments:

► President Eisenhower sent a message saying "... I know of nothing more basic than home ownership as a guaranty of the American way of life. There is no industry more essential to a healthy economy since it provides employment for so many people . . ."

► Blunt-spoken Secretary-Treasurer Joseph Keenan of AFL's building trades department warned the convention labor will fight any efforts to kill public housing (which NAHB opposes) and urban redevelopment (which NAHB supports, realtors oppose in present legal form). He charged: "This question of urban rehabilitation is not . . . a contest between public and private agencies, but between action and inaction, promise and denial—with the industry cast in the 'do nothing' role. . . . There are many areas where private industry, acting alone, simply cannot do the job that needs to be done."



HOUSING POLICY discussion erupted at mortgage panel. FHA Chief Greene agreed "some slight increase," perhaps to \$5,700, would be in order for Title I, Sec. 8. HHFA Boss Ray Foley surprised some listeners by admitting it "would be entirely consistent" to study a complete overhaul of FHA mortgage ceilings now that the "\$6,000 to \$8,000 house of 15 years ago is comparable to the \$12,000 to \$15,000 house." Explained Foley: "The test would be, does Congress think we are now on a cost level that will . . . at least not fall rapidly?"

NAHB Counsel Herb Colton warned: "Not 1% of US builders are processing (4% loans) in accordance with VA regulations . . . It is dynamite." Vice President John G. Jewett of Prudential Insurance Co. said the fear that illegal discount practices might cause loans to lose their guaranty makes his firm "quite afraid of VA loans." Ass't Vice Pres. Fred Jackson of Brooklyn's Dime Savings Bank charged: "Local lenders don't take the interest in their local communities that they should. It's an outrage."



SHOP TALK session was led by Builder Earl Smith, chairman of NAHB technical committees.



RETIRING Frank Cortright receives from Publisher Perry Prentice of **HOUSE & HOME** a bowl "in recognition of long service to the home buying public and home building industry." Mrs. Cortright watches.



AT HOUSE & HOME party, ex-NAHB President W. P. "Bill" Atkinson chats with Mr. and Mrs. Andy Place.



PARTY SMILES were flashed by Mr. and Mrs. Perry Prentice (l) and Mr. and Mrs. Manny Spiegel at **HOUSE & HOME** celebration for new NAHB officers.



NEW LEADER: John M. Dickerman (l), who was NAHB's assistant executive vice president under retiring Frank W. Cortright, was promoted to executive director (and staff chief of the association) while abed with flu. First day up brought huddle with just-elected President Spiegel.



DESIGN PANEL heard Architect Todd Tibbals complain: "The public seems to stay way, way ahead of us on design." Architect Nat Owings (speaking) called bathrooms "barbaric," wash basins "frustrating . . . because everything you put on [them] falls off." Cliff May urged builders to expect to pay at least \$100 a house for design (on mass production basis). Said he: "For \$25 to \$50 for a plan, an architect can't afford to give any thought to design. That's why we build so many bad houses all over the country."



CONVENTION SESSIONS kept his staff so busy that HHF Administrator Foley (left, chatting with assistant Neal Hardy), cracked: "If I want to ask my staff a question I have to come to a panel."



LOW-RENT HOUSING panel heard FHA Chief Greene disclose his agency will "consider" figuring Sec. 207 loans on basis of 95% occupancy instead of usual 93% if rents are below market, will "consider" capitalization rate lower than usual 7%. Panel consensus: if private builders are to build for almost untapped Negro rental market, FHA must sweeten 207 procedures still more. NAHB Counsel Herb Colton urged higher percentage loan above \$7,000. Builder Pat Burns (l) told FHA's Curt Mack (r) that Los Angeles FHA office would not make loan on widely-admired low rent (\$45 a month for 1 b/r) apartments because of cost savers like no garages, open balconies instead of inside hallways.



WOMEN'S AUXILIARY heard talk by Correspondent Marguerite Higgins, shown lunching with NAHB Staff Hostess Mrs. Lillian Asmus (l).



HOW TO SELL a house panel heard Sales Manager William Hannon of Fritz Burns' Los Angeles organization (1,100 houses in '52) suggest: "If the house you build is a lemon, make lemonade of it—add an outside hearth, a rumpus room . . . Don't cut price."



COCKTAIL CHAT engages Mr. and Mrs. Rodney Lockwood and Gen. Mgr. E. O. Brady of Briggs Mfg. Co.'s plumbing ware division.

BUILDER'S ARCHITECTS (l to r) Ed Fickett, Robert Anshen and A. Quincy Jones compare notes.

PEOPLE: Sen. Johnston sponsors helpful bill as Builder

J. C. Long asks court to save 608s; Realtor Hobart Brady dies

Since the resignation a year ago of State FHA Director Herman E. Bailey (H&H, Mar. '52, News), times and conditions had changed for big-scale South Carolina Builder **J. C. Long** (younger brother of **Leonard D.**, biggest builder in the state). Last month, Long tangled in federal court with FHA over three 608 apartments he built in Anderson, Rock Hill and Orange. FHA was already foreclosing against a fourth at Greenwood. Long sought a court order forcing FHA to operate the first three through its discretionary power to take over a delinquent mortgage after paying for it with 2½% debentures. Alternatively, Long suggested: "If FHA would let us run these places like businesses, we could operate them [at a profit]. They put so many regulations on us that we can't make ends meet." Specifically, he wanted permission to convert the 50-unit apartment building into a hotel, or partly into office space, or into larger apartments, or into furnished units with rents hiked more than 1/48th of the furniture cost. However his relations with FHA had worsened, Long (for years a heavy contributor to Democratic campaign funds) still had other powerful friends. At month's end, **Sen. Olin D. Johnston** (D, S.C.) introduced a bill in Congress which would force FHA to allow operation of delinquent 608s as hotels or "other transient accommodation." Passage looked doubtful.

One of the oftenest-heard builder complaints is that too many FHA offices are staffed by aged, lackadaisical drones, need a transfusion of alert, energetic personnel. San Diego, with a 9,000-unit defense housing program, largest in the country, last month was providing what struck many a harassed builder as a good example. Local FHA processing had fallen six weeks behind since highly regarded but heavily burdened district Director **Edward A. Walsh**, 58, near collapse with high blood pressure and chronic asthma, went on indefinite sick leave last October after a 17-yr. FHA career. A month before, his chief underwriter **Ralph Swearingen** left at the statutory retirement age. Acting Director **William J. McMurray** blamed a shortage of construction inspectors for slowing commitments. But San Diego builders described the office as "like a ship without a pilot," with officials afraid to exercise judgment on anything out of the ordinary.

The San Diego VA office, which has been leaning over backward at rigid enforce-

ment of its rules since last year's bribery scandals, also underwent an administrative shake-up. Chief appraiser **Russell Maher**, sometimes a thorn for builders, his assistant **Fred Kaehler**, and construction analyst **William Daugherty** resigned. Former Milwaukee OPS Director **Richard Marks** succeeded Kaehler, but temporarily Maher's job remains open. Loan guaranty officer **E. L. Tagwerker**, assigned in Aug. 1951 to "clean up" after the scandal, reported certificates issued from the cramped (no chairs for visitors) office during his first year were only 2,072, compared with 3,024 the previous year.

Attorney **Charles Abrams**, 52, former counsel to New York City's Housing Authority, was named by the NY chapter

Associated Press



ABRAMS

of the League for Industrial Democracy to receive its 1953 award "for distinguished service to New York City and America in the important field of housing." Housing lecturer, UN consultant on urban land problems, vociferous public housing advocate and author of *Future of Housing*, Polish-born Abrams will receive the award from ex-USHA Chief **Nathan Straus**.

NAMED: **Lloyd A. Mashburn**, 55, California state labor commissioner, member of the AFL Wood, Wire and Metal Lathers Union and former Los Angeles Building & Construction Trades Council secretary-treasurer, as Undersecretary of Labor; **John D. Biggers**, president of Libby-Owens-Ford Glass Co., as chairman of the Department of Commerce business advisory council; **Herbert N. Leisk**, Flushing, L. I. realtor, as president of the Society of Residential Appraisers; **Robert A. Weppner**, of the Baltimore firm of Buckler, Fenhagen, Meyer and Ayers, as winner of a \$100 prize from the AIA Washington chapter for designing the inaugural parade reviewing stand in front of the White House; **William Millerburg**, Van Nuys (Calif.) building contractor and NAHB director, Architect **Paul Robinson Hunter** and **Dwight L. Clarke**, retired banker-insurance executive, as new members of the embattled Los Angeles Redevelopment Commission succeeding Realtor **Philip Rea**, Builder **Milton J. Brock, Sr.** and public housing Director **Howard**

Holtzendorff (H&H, Jan. '53, News); **Robert B. Garrabrants** of the US Chamber of Commerce construction and civic development department, as secretary of the Urban Land Institute Industrial Council; Chicago Architect **Nathaniel A. Owings**, as a director of Celotex Corp.

For its new dean of the school of design, Harvard University last month picked Barcelona-born Architect **José Luis Sert**,

Fred Stein



SERT

50, of New York. On Sept. 1, Sert will succeed **Joseph Hudnut**,

who is scheduled to retire at the end of this term.

No successor seemed likely to be

named for Bauhaus-founder **Walter A. Gropius**,

who resigned last June as architecture department chairman.

In Sert, who is president of the CIAM (Congrès Internationaux d'Architecture Moderne), Harvard will get one of the world's top town-planner architects, yet one who is probably better known in Central and South America than in the US. Sert and his partner Paul Lester Wiener are authors of master plans for more than half a dozen South American cities, including Lima, Peru. Sert was professor of city planning at Yale. His book on town planning *Can Cities Survive*, is a text in several schools. He came to the US in 1939 and expects to continue his New York practice despite his academic duties.

DIED: **Hobart C. Brady**, 50, president of NAREB in 1948, former vice-president of the Institute of Real Estate Appraisers,

UP author of *Real Estate Selling Today*, *The Human Equation in Salesmanship*, *Real Estate . . . It's Wonderful*, Jan. 20 in Wichita, Kan., where he was head of H. C. Brady, Inc.; **Francis de Neufville Schroeder**, 51, editor of *Interiors* magazine and former associate editor of TIME, LIFE and FORTUNE, Dec. 27 in Naples, Italy, while vacationing; **Marie Alexander**, 46, wife of Los Angeles Architect-City Planner Robert E. Alexander, Jan. 8 when her automobile stalled and was struck by a train; **Col. Henry H. Burdick**, 75, real estate editor of the Detroit Free-Press and former president of the National Association of Real Estate Editors, Jan. 18 in Detroit.



BRADY

magazine and former associate editor of TIME, LIFE and FORTUNE, Dec. 27 in Naples, Italy, while vacationing; **Marie Alexander**, 46, wife of Los Angeles Architect-City Planner Robert E. Alexander, Jan. 8 when her automobile stalled and was struck by a train; **Col. Henry H. Burdick**, 75, real estate editor of the Detroit Free-Press and former president of the National Association of Real Estate Editors, Jan. 18 in Detroit.



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Beauty for all to admire! Yet with its lovely lines and colors, Lavanette is a practical part of any bathroom—old or new. It fits snugly into a small space, and within it there's room for everything. Drawers are especially designed for convenient, organized storage of cosmetics, bobby pins and shaving items. It even includes a medicine cabinet—with a hidden locking device to protect curious children. Lavanette is built with harmonizing porcelainized bowls, baked enamel cabinets and durable, one-piece plastic vanity tops. Available in a choice of exciting, contrasting color combinations to make your bathroom truly a show-place.



Top right: Lavanette, sandstone bowl and cabinet, red linen top. Right: New Twin Bowl Vanity, green bowl and cabinet, mother-of-pearl top. Below: Vanette, pink bowl and cabinet, mother-of-pearl top. All models available in five color combinations.

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Women like this kitchen that costs you less to build



IT'S not often that you run across a money-saving idea that actually adds to the sales-appeal of a house—but this one does. It's a plan that enables you to offer a breakfast nook in a small kitchen. At the same time, this arrangement provides pantry-size storage space without costly cabinetwork.

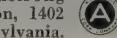
Women like this pantry-style working area because everything is handier. They like the whole idea of this kitchen for its efficiency, its good looks, and its uncramped feeling.

Much of the spacious look and the smart appearance of this room is contributed by the floor of Armstrong's Strypelle® Linoleum. Although it has the handsome appearance of an expensive, custom-styled floor, Strypelle actually costs no more than ordinary lino-

leum. That's because the stripes are inlaid at the factory — they require no costly fitting on the job. By installing the floor with the stripes across the room, a narrow kitchen was made to look wider—always a desirable feature.

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SEND FOR FREE ROOM PLAN. For a sketch plan of this kitchen arrangement, color scheme description, and a complete list of the room's furnishings, write today to Armstrong Cork Company, Floor Division, 1402 State Street, Lancaster, Pennsylvania.

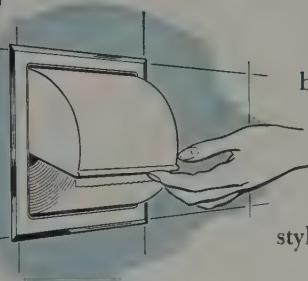


ARMSTRONG'S LINOLEUM



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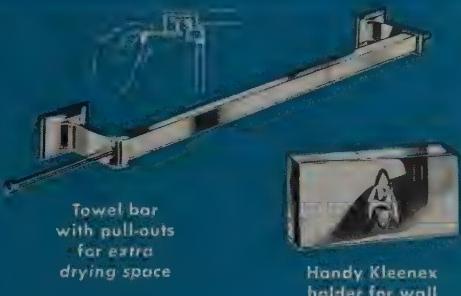
This new concealed toilet paper holder originated by Hall-Mack strikes a note of quiet refinement in any modern bathroom.



A CHEERFUL BATHROOM — accented with the refreshing, gleaming beauty of Hall-Mack accessories — has a way of making busy households run smoother. Every member of the family seems to enjoy the unique combination of convenience and smart styling which has made Hall-Mack the consistent choice of discriminating home-builders down through the years.



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magic for soap
... tumbler
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Towel bar
with pull-outs
for extra
drying space



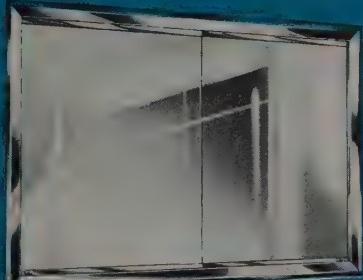
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holder for wall
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No wonder Uskon electrical radiant heating will help sell *any* house. And it is quickly and easily applied to the ceiling. No preliminary preparation—a minimum of time and trouble for you. *It keeps your costs down.* Developed and produced by United States Rubber Company, Uskon has been tried and

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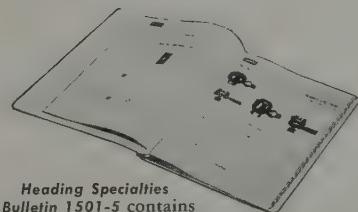


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EVENTS TO COME

The Architectural League of New York, national Gold Medal competitive exhibition in architecture, landscape architecture and engineering, Feb. 3-27 at League headquarters, 115 East 40th St., New York, N. Y.

The American Concrete Institute's 49th annual convention, Feb. 17-19 in Boston. Special sessions on prestressed concrete, vibrated concrete and structural design.

Good design exhibition of home furnishings under joint sponsorship of Museum of Modern Art and Chicago Merchandise Mart continues through 1953 at the Mart. New York version of exhibition comes to the museum next autumn.

Plastics exhibit—Reinforced Plastics Division of the Society of the Plastics Industry, an exhibit Feb. 18-20 to demonstrate the versatility of reinforced plastics in architectural applications; in conjunction with the annual conference of the division at the Shoreham Hotel, Washington, D. C.

Fellowship—School of Architecture, Princeton University, the Lowell M. Palmer Fellowship in Architecture to assist a student of unusual promise to undertake the advanced study of architecture at Princeton. The Palmer Fellow to receive \$1,200 during his year of residence, be entitled to all privileges of a Fellow of the University, live at the Graduate College if unmarried. Applicants must be citizens of the US, holders of a bachelor's degree, less than 27 yrs. old on Oct. 1, 1953 and in good physical condition. Applications and supporting documents must be received by **March 1**. For application blanks, address: The Secretary, School of Architecture, Princeton University, Princeton, N. J.

Associated General Contractors' annual convention at Miami, Fla., **March 23-28**.

New England Home Show combined with Modern Living Exposition; at the Mechanics Building, Boston, **April 18-26**. Participating are architects, builders, mortgage interests, realtors, material suppliers and others. Home Show office: 250 Boylston St., Boston 16, Mass.

Competition—Ponderosa Pine Panel Door Design Competition to obtain designs for interior panel doors suitable for mass production methods and consistent with current standards of architectural design. Prizes total \$7,600 including \$1,000 in student and school prizes. AIA approved; closes **April 27**. For program write Ponderosa Pine Woodwork Competition Headquarters, 2907 West Pico Blvd., Los Angeles 6, Calif.

National Savings & Loan League's 10th annual convention **May 10-14** at Chase and Park Plaza hotels, St. Louis, Mo.

National Housing Conference's 22nd annual meeting **May 11-12** at the Statler Hotel, Washington, D. C.

National Association of Building Owners and Managers' 46th Annual Convention **June 7-11** at Pittsburgh, Pa.

The American Institute of Architects' annual convention **June 16-19** at Olympic Hotel, Seattle, Wash.

National Association of Real Estate Boards' annual convention **Nov. 8-14** at the Statler and Biltmore hotels, Los Angeles, Calif.



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Carrier offers \$27,800 for best Weathermaker

We believe that year-round air conditioning can be the genesis of better homes. Carrier originated the Weathermaker Home concept to encourage the recognition of air conditioning as a factor in home design.

We are sponsoring this Architectural Competition to focus your attention on the potentialities of year-round air conditioning for the nation's houses.

We cordially invite your designs and hope you will enjoy planning for our Weathermaker Air Conditioners.

Important: to be eligible for an award your submission must conform to the program. Write for it now. Address: Harold R. Sleeper, F.A.I.A., Professional Advisor Carrier Weathermaker Home Competition 25 West 44th Street, New York 36, New York

The new Carrier Weathermaker beats a builder's dreams

Last year the building industry told Carrier (and every other air conditioning manufacturer) what kind of air conditioner they needed to tap the vast market for homes as low as \$10,000.

Today, the new two-ton Carrier Home Weathermaker gives them what they asked for.

They asked for: a combination that would take no more than 12 sq. ft. of floor space.

The Weathermaker: heats and cools, snuggles into a 3 x 3 ft. space.

They asked for: a lower price tag.

The Weathermaker: costs less than any other combination of its capacity.

They asked for: low operating costs to meet FHA standards.

The Weathermaker: comes in water-cooled models, or air-cooled where water is a problem; burns gas or oil, whichever is least expensive.

They asked for: fewer extra costs.

The Weathermaker: comes complete, requires only ducts and final connections.

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If you want your small houses to be big news, get the full facts on the new Carrier Weathermaker. Write: Carrier Corporation, Syracuse, New York.



Carrier

to architects Home designs

The Carrier Weathermaker Home Competition for the economical design of houses equipped with year-round air conditioning . . .

The Purpose: to provide designs which will encourage the planning and building of modern well-designed houses equipped with year-round air conditioning.

The Criteria: (1) good planning for house and site which takes advantage of year-round air conditioning; (2) skill in achieving economies in plan, design and equipment due to the use of year-round air conditioning; (3) suitability and adaptability for use in a home development; (4) esthetic considerations.

The Awards: National Grand Prize of \$5000
6 Regional Grand Prizes of \$2000 each
12 Regional First Prizes of \$750 each
12 Regional Second Prizes of \$150 each

The Contestants: must be registered, graduate or student architects or architectural draftsmen residing in the Continental United States, the Territory of Hawaii, Puerto Rico, or the Canal Zone.

The Jury: will be made of three Members of the A.I.A.; a housewife and a builder.

The Problem: Class 1—House of 1000 sq. ft. and under on 60 x 120 ft. lot
Class 2—House of 1000 sq. ft. to 1800 sq. ft. on 80 x 120 ft. lot
Awards will be made to both flat and pitched roof types in each class.
Contestants must design their submissions for the region in which they live or work. For purposes of the Competition the United States will be divided into Three Regions: Northeast Region; Southern and California Region; Northwest and Central Region.

The Deadline: submissions must be received at the following address not later than 5 P.M., E.S.T., April 10, 1953.

Harold R. Sleeper, F.A.I.A., Professional Advisor
Carrier Weathermaker Home Competition
25 West 44th Street, New York 36, New York

The Entries: winning designs will be publicized and promoted nation-wide and Carrier Corporation will assist in the construction of the actual houses.

Contestants shall have the right to make contracts for their architectural services in connection with their winning designs, as it is the desire of the Sponsor that these houses be built.

The Sponsor reserves the right, on written notice to the contestant, to purchase and publicize other than the prize-winning designs. Contestants shall be paid \$100 for each such design selected.

All other submissions will be returned to the contestants, insured for \$100.

LETTERS

NAREB ON CAPITAL GAINS

Sirs:

I will try to clarify the resolution our convention passed concerning the capital gains tax (H&H, Dec. '52, p. 48).

In some parts of the country, real estate brokers and investors can avail themselves of the provisions of the Revenue Act which classify sales of real estate at a profit as capital gains carrying a maximum of 26%, if they are held for a period of six months or more. If an individual in any kind of business makes this kind of transaction, he is allowed to compute his tax on this basis.

In most parts of the Middle West and some parts of the South, the collectors have ruled that anyone who is a broker or dealer in real estate must pay on such a profit on the basis of his regular income regardless of the time for which the property is held. This is because the collectors say that real estate owned by someone in the business is inventory and a business profit regardless of the holding period.

Investment brokers and dealers are universally allowed to classify their purchases and sales on a long-term or short-term basis. This is in spite of the fact that their firms, or they as individuals, may be dealing continually in stocks and bonds on their own account. Provided any investment is held over six months, they can classify the profit on a sale on a capital gains basis.

In the first place, there is no reason why real estate dealers should be penalized as against investment dealers. In the second place, there should be the same rule applied in all parts of the country uniformly instead of giving some real estate men the advantage of capital gains and penalizing others.

The purpose of the resolution was to have it put into law so that we would be treated on the same basis as investment dealers.

JOSEPH W. LUND, president

National Assn. of Real Estate Boards

PREFABRICATED HOUSES

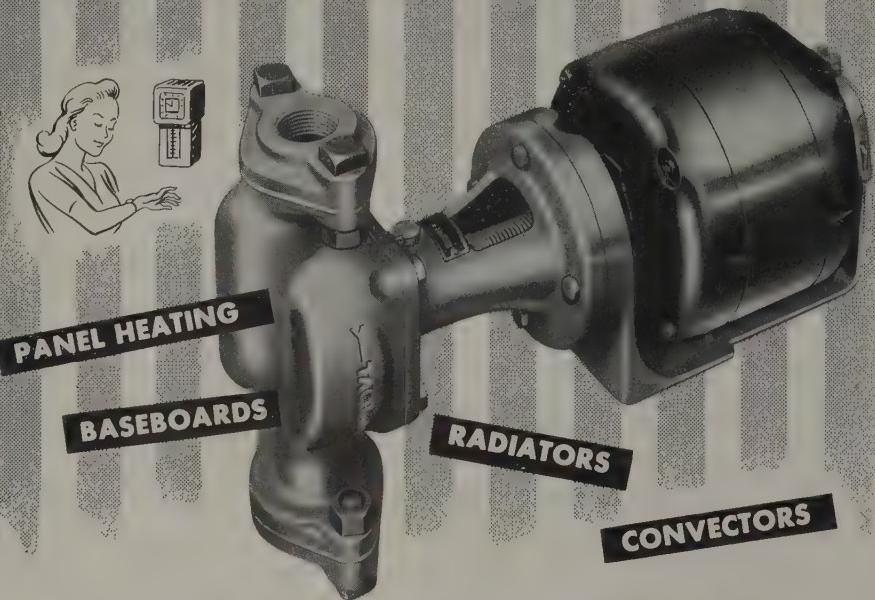
Sirs:

When the Housing Act of 1949 was passed and the new program was getting under way, I believed that the prefabricated housing industry had a lot to offer the public housing program, particularly in the rural nonfarm and small towns programs. It is a belief I am by no means willing to abandon yet, in spite of the fact that to date the experience with prefabs in public housing has been somewhat discouraging.

There is no doubt that if the prefab is cheaper than conventional construction, meets standards for space and minimum amenities, is comparable in terms of maintenance costs over the long haul (public housing must outlive its 40-yr. amortization), it should be used in the public housing program. So far, the

continued on p. 66

get FAST, RESPONSIVE HOT WATER HEAT for



with this popular TACO CIRCULATOR

EVEN LOW BUDGET HOMES CAN NOW HAVE THESE LUXURY ADVANTAGES

RADIANT WARMTH • DRAFTLESS WARMTH • CONTROLLED WARMTH



MORE HOT WATER FOR KITCHEN, BATH AND LAUNDRY

Yes, forced hot water heat with a TACO circulator gives all this plus economical warmth. No need for a separately fired water heater. TACO TANKLESS, hooked up to a heating boiler, supplies year 'round low cost hot water.

The TACO circulator delivers heat where it will give the greatest comfort . . . whether you use radiant panels, convectors, radiators or baseboards.

ARCHITECTS-ENGINEERS
WRITE FOR . . . SIMPLIFIED
SELECTION CHART FOR SIZ-
ING TACO WATER HEATERS
UNDER ANY CONDITIONS.

Three other famous TACO PRODUCTS for houses

TACO-VENT



eliminates air
from hot water
radiation
automatically

TANKLESS TACO

gives an abundant supply of hot water instantly. No need for storage tank.

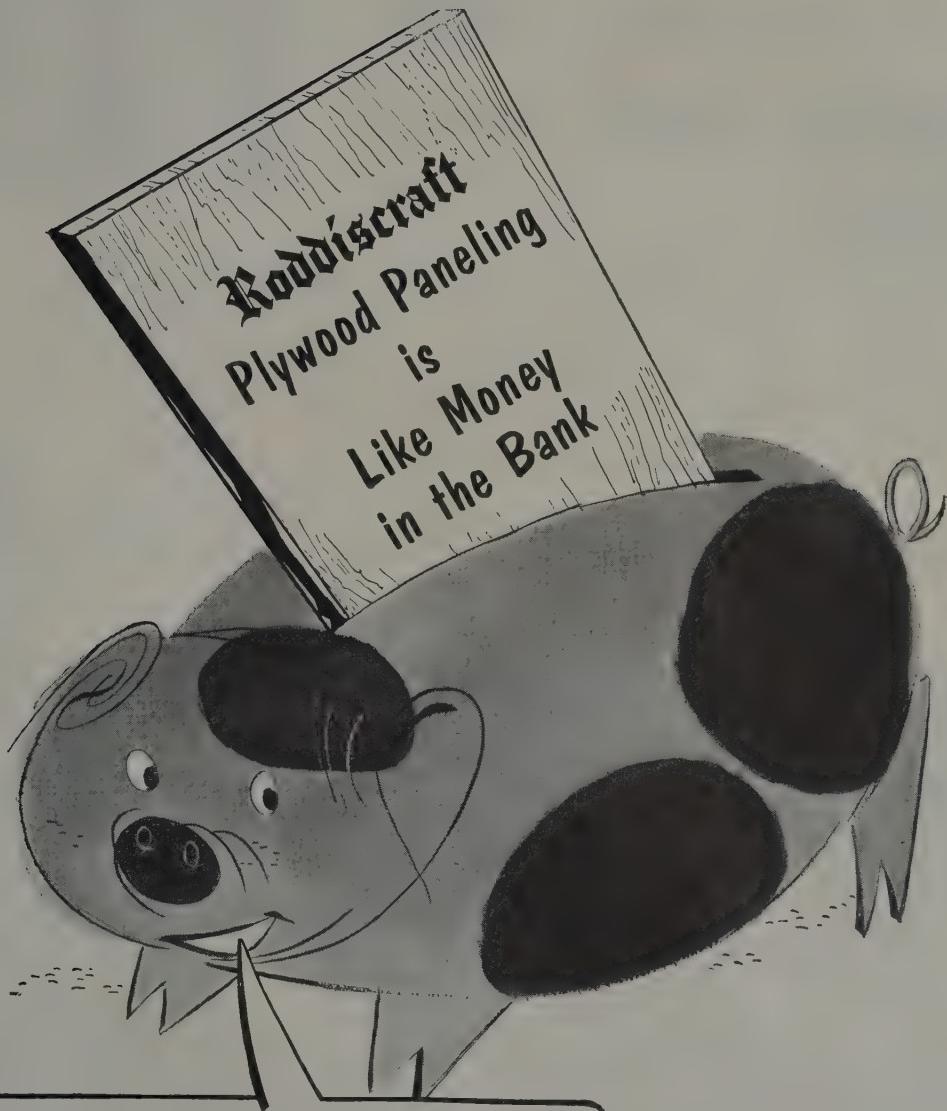
TACO TEMPERING VALVE

thermostatically mixes hot water with cold so there's no danger of its being too hot.

Better Heating-
Better with Taco

TACO HEATERS, INCORPORATED • 137 SOUTH STREET • PROVIDENCE 3, R. I.

Taco



Money in the bank never asks anything of the owner — and neither does Roddiscraft plywood.

RODDISCRAFT plywood gives — instead of taking. It gives a permanent wall that pays continuing dividends in lasting beauty. It never takes more and more money for painting, papering, patching, scrubbing. A Roddiscraft plywood paneling installation is a one cost job — it's a built-

in part of the building — a background of beauty.

Roddiscraft is preferred 2 to 1 by architects for doors. The same quality that has made Roddiscraft doors first choice of architects for over half a century is built into Roddiscraft plywood. It's beauty with brawn — built to last and last.

NATIONWIDE Roddiscraft WAREHOUSE SERVICE

Cambridge 39, Mass. • Charlotte 6, N. C. • Chicago 32, Ill.
 Cincinnati 4, Ohio • Cleveland 4, Ohio • Dallas 10, Texas
 Detroit 14, Mich. • Houston 10, Texas • Kansas City 3, Kan.
 Los Angeles 58, Calif. • Louisville 10, Ky. • Marshfield, Wis.
 Miami 38, Fla. • Milwaukee 8, Wis. • New Hyde Park, L. I.,
 N. Y. • New York 55, N. Y. • Port Newark 5, N. J. • Philadelphia 34, Pa. • St. Louis 16, Mo. • San Antonio 6, Texas • San
 Francisco 24, Calif. • San Leandro, Calif.

Roddiscraft

RODDIS PLYWOOD CORPORATION
 Marshfield, Wisconsin

"I use Electronic Moduflow to boost my reputation"

says Robert M. Bush, Jr., Atlanta builder

"If you asked me what was the single, most valuable asset a builder could have, I'd answer you in two words—'His reputation.'

"That's why, when I build a house, I try to offer prospective buyers the very finest styling and *comfort*, in keeping with price.

"To assure the finest comfort temperature-wise, I've found Honeywell's Electronic Moduflow almost a must on any new construction.

"The Electronic Weathercaster, the thermostat you mount outside the house, compensates for colder walls



Builder Robert M. Bush, Jr., left, is president of the Bush Construction Company in Atlanta, Georgia. For floor plan of Bush-built J. C. Lewis home, see opposite page. Home was designed by Kent Griffin, Atlanta.

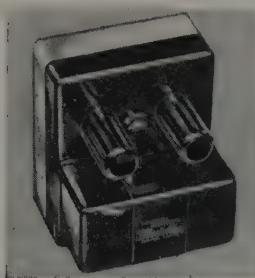
by raising indoor temperatures when the outdoor temperature drops. The indoor thermostat enables the owner to pick the comfort level *he* prefers. And super-sensitive electronic controls plus cycled heat save a good deal of fuel and help do away with drafty floors. They also help prevent undesirable air stratification.

"Add up these advantages, and I think you'll agree with me that no other control system compares with Electronic Moduflow.

"And I think you'll agree that by improving buyer comfort with Electronic Moduflow, I boost my reputation."

Builder Bush, left, discusses Electronic Moduflow installation in the Lewis home with Honeywell sales representative Tom Lee.





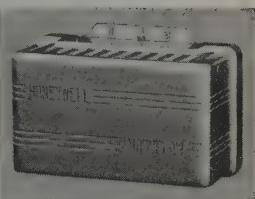
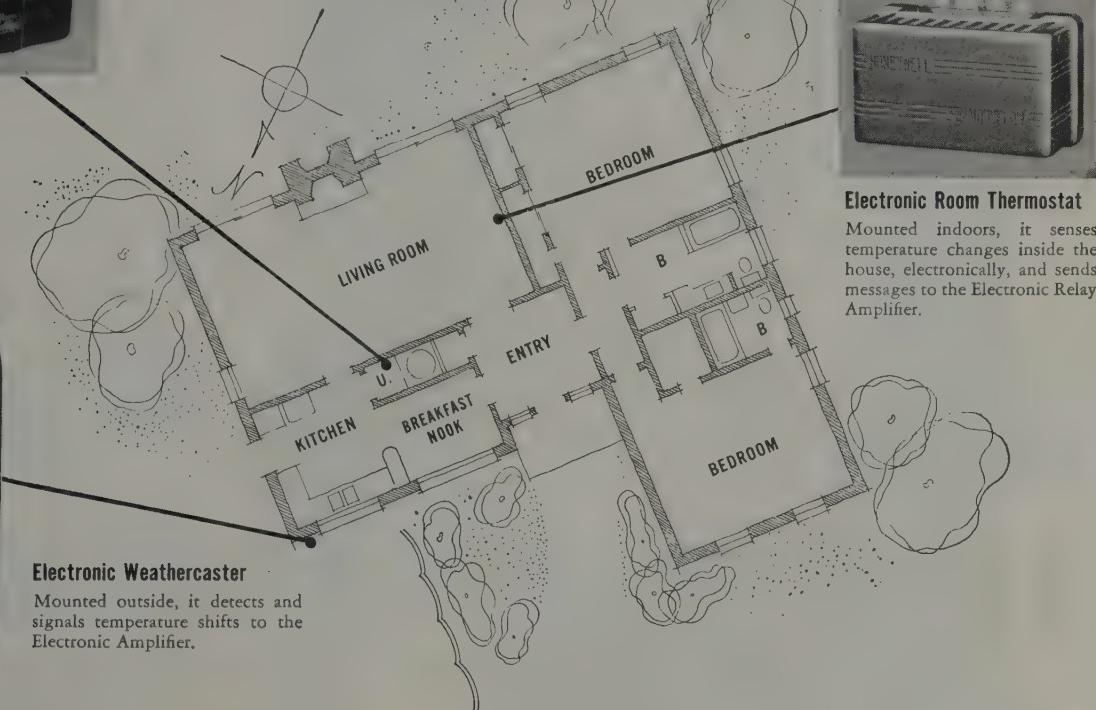
Electronic Relay Amplifier

Interprets signals from the inside and outside controls, correlates and balances them, and sends them on to the heating plant.



Electronic Weathercaster

Mounted outside, it detects and signals temperature shifts to the Electronic Amplifier.



Electronic Room Thermostat

Mounted indoors, it senses temperature changes inside the house, electronically, and sends messages to the Electronic Relay Amplifier.

Magic of Electronic Moduflow heating control makes your homes easy to sell

In addition to being comfort conscious, every prospect is intrigued when you mention that magic word "Electronics."

When you show a house with *Electronic Moduflow*, if your prospect is at all interested, you're closer to a sale.

And it's good to tell your prospect the *reasons why* Electronic Moduflow will mean he'll be more comfortable.

Simply explain that because the controls are electronic, they're 28 times more accurate and sensitive than ordinary controls. That in the new Honeywell Moduflow system, outdoor and indoor thermostats work together to give comfort that's close to ideal—by raising indoor temperature to compensate for heat loss when outdoor temperature drops—by balancing indoor temperature with the weather. And Electronic Moduflow provides virtually constant air circulation and eliminates hot ceilings and cold, drafty floors.

See your local Honeywell office—or send for more information.

Honeywell



First in Controls

What home owners say about Electronic Moduflow



Mrs. John Leedy, Atlanta, says: "Electronic Moduflow certainly eliminates drafts. Our young son, who was going into the crawling stage last year, didn't have a cold all winter."



Harry A. Cross, Jr., Wethersfield, Connecticut. "That Electronic Weathercaster mounted outside our front door is the best idea for beating the weather I've ever heard of."

MINNEAPOLIS-HONEYWELL REGULATOR CO.
Dept. HH-2-26, Minneapolis 8, Minnesota

Gentlemen: Please send me more facts on your new Electronic Moduflow System for homes.

Name

Firm Name

Address

City Zone State



More Livability PER SQUARE FOOT IN TODAY'S HOMES WITH WEISWAY CABINET SHOWERS

**PERMANENTLY
LEAKPROOF**

**SMOOTH
MODERN
LINES**

**DEPENDABILITY
...THROUGH
THE YEARS**

Quality-built Weisways meet a major requirement in contemporary home planning, providing extra living comfort and convenience in small areas. Complete, self-contained Weisway Cabinet Showers are the safe, dependable answer to the modern demand for more baths and better shower facilities. Walls are Bonderized, galvanized heavy-gauge steel with two separately baked on coats of enamel. Vitreous porcelain enamel receptor, acoustically insulated, has Foot-Grip, No-Slip floor—safe, positively non-absorbent, and sanitary. Write now for catalog.

Weisway CABINET SHOWERS

HENRY WEIS MFG. CO., Inc., 242 Weisway Building, Elkhart, Indiana

evidence that it meets these criteria is slim.

In general, for the big-city public housing program, the prefab is out of the question mainly because of building code fireproof requirements and the high density standards required for expensive in-city land.

But in rural nonfarm programs, prefabrication should have wide applicability for two reasons: building code requirements are not so stringent as they are in metropolitan areas; the one-story row house or detached house (usual prefab types) are compatible with existing patterns in small towns.

William E. Bergeron, director of the Chicago field office of the Public Housing Administration, last March pointed out to prefab manufacturers that economies through use of prefabs in two public housing projects at New Albany, Ind. and Georgetown, Ill. had not come up to expectations. Economies achieved initially may be lost over a 40-yr. period in increased maintenance costs.

Although the Public Housing Administration, particularly the Chicago field office, has actively encouraged the use of prefabs in small towns, to date prefabs are included in only three projects (New Albany, Ind., and Georgetown and Hooperston, Ill.). The infinitesimal number of units of prefabs—284—in the total program is perhaps an indication of lack of interest among prefabbrs in the public housing field.

Moreover, John C. Taylor Jr., president of the Prefabricated Home Manufacturers Institute, in November told his fellow prefab manufacturers that he envisioned prefabbrs going into the most costly types of homes, a statement that hardly appears encouraging to the public housing field.

JOHN D. LANGE, exec. director

National Association of Housing Officials
Washington, D. C.

Sirs:

I have read with great interest the November issue of *HOUSE & HOME* regarding the prefabrication of homes for builders.

You are to be given much credit for the way you have handled this subject. We are now negotiating with one of the prefabricators for 31 houses. We have not had any experience with prefabricated houses but do feel there is a possibility that it may be profitable for us to operate in this manner.

FLOYD KIMBROUGH

Kimbrough Investment Co.
Jackson, Miss.

Sirs:

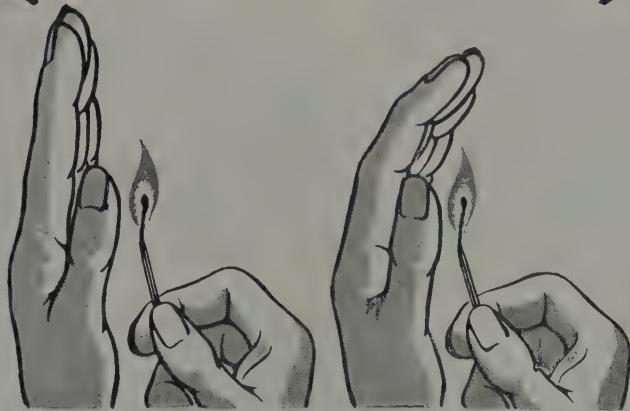
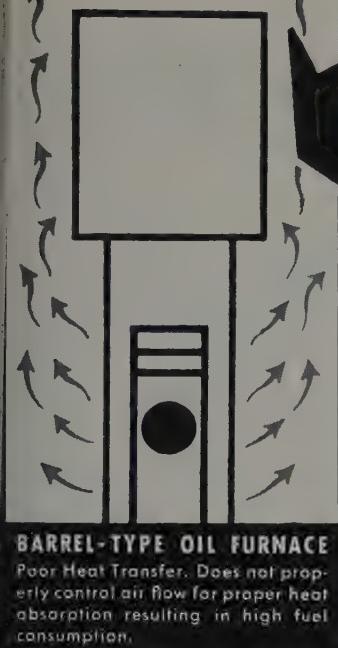
You . . . present the issue in a most attractive manner.

As a progressive bank, our organization is always alert for new ideas and growing industries. Our experience with prefabs here in California to date has not been too satisfactory. We have climatic advantages which make it unnecessary for housing to be con-

continued on p. 68

DEAD SPOT

COMPARE



MAKE OUR MATCH TEST

... PROVE TO YOURSELF THE EFFICIENCY OF
KAUSTINE "TEAR DROP" DESIGN

● Kaustine Oil Fired Furnaces are ENGINEERED to deliver maximum heat with a minimum of fuel consumption. This is accomplished by Kaustine's unique "TEAR DROP" Heat Exchanger Systems.

Basically this phenomenal ability to develop quick, even heat is achieved by the *controlled* course of air around the "Tear Drop" Heat Exchanger, the Radiation Sheets and the Economizer Unit. The latter utilizes the heat from stack gases.

Remember too...that Kaustine's reputation for quality is unsurpassed and their prices are competitive.

Write for full information to Dept. H-2.

There is a Kaustine Furnace or Winter Air Conditioner for every type of home.

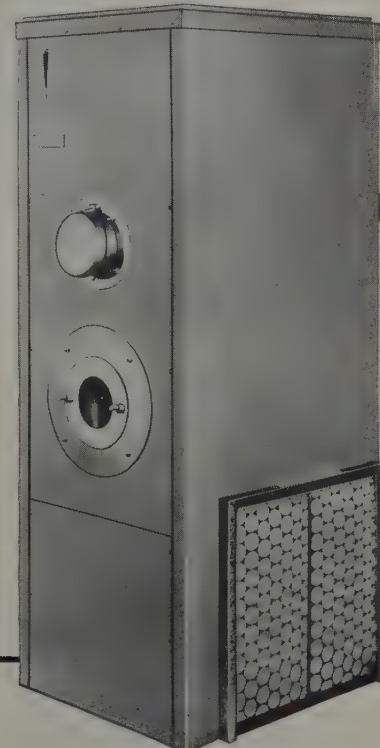
THE POPULAR JERSEY "75"

The OIL FIRED HIGH BOY Jersey "75" Automatic Forced Warm Air Furnace. Requires only 3½ square feet of floor space. 75,000 B.T.U.'s. Chrome steel fire pot liner. Fully automatic controls. Shipped ready to install. Weight 324 lbs.



Kaustine

COMPANY, INC.
PERRY, NEW YORK



structed in the same manner that the more variable climates of the Midwest and East seem to require. Consequently, prefabricated dwellings shipped into this area usually are non-competitive in price because they are designed to include insulation and other factors which run up the cost considerably.

We are, however, having a rather successful experience with two or three "assembly-line" operations which, after all, offer one of the advantages to be found in the factory method. Experiments are being conducted along the line of improving layout, eliminating needless code requirements, and standardizing fixtures and built-in features in many of our tract operations. It is our belief that lenders will find many advantages in the inexpensive home you show in the article.

WALTER J. BRAUNSCHWEIGER
Exec. vice president, *Bank of America*
Los Angeles, Calif.

Sirs:

Congratulations on "The prefabricated house and its future." In my opinion most builders are not aware of the threat that the prefabricated house poses to the status quo. I was particularly impressed with National Homes' product and their plans for the future. The only alternative I see for the prefab house, as we now think of it, is the system Ned Cole and I are using: component parts, working from the interior out.

I am not sure that I agree with you, that an alert progressive builder can always give his local business something better than a house designed for a nationwide audience. As I personally feel, there are too few such builders in our association and as these builders drop out of the picture it will be easier for a new type of builder to join the prefabricators.

MARTIN L. BARTLING JR., vice president
Homes, Inc.
Knoxville, Tenn.

Sirs:

There will always be a question as to whether prefabricated houses can be put up more reasonably than those constructed by large-scale builders (H&H, Nov. '52).

I think most builders should look at the problem of whether they can use prefabricated houses and make a profit out of them. That is the answer.

W.M. E. JOHNSON
Executive vice president
Home Builders Assn. of Philadelphia and suburbs

Sirs:

In H&H, Nov. '52, p. 91, all roofs, chimneys, windows, doors and walks seem to be the same. If these houses were placed on vacant lots where the community has been developed with individually planned houses, they no doubt would be very impressive and beautiful, but as they are, the repetition is monotonous.

continued on p. 74



**Every day...
in every way...
Foldoor helps
sell more homes!**

★ Rugged steel frame, welded rods and rigid hinge plates
—resist rust, give a lifetime of trouble-free service

★ Vinyl plastic coverings, wide color range
—easy to clean with soap and water
—long-lasting and fire-resistant

★ Attractive cornice conceals track
—no extra cost.

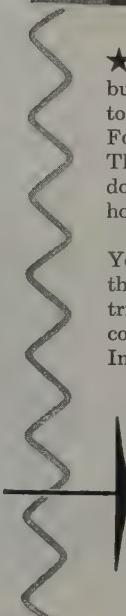
★ Exclusive zig-zag centerline construction requires less stack space

★ Easy, low-cost installations

★ Backed by 56 years' engineering and manufacturing experience

★ Every day more and more architects and builders turn to FOLDOOR for the answer to closure problems. They save space with FOLDOOR. They cut costs with FOLDOOR. They add lively homely atmosphere—and double-duty service—to any room in any home.

Plan with FOLDOOR in every blueprint. You'll find the right size, type and color through your local FOLDOOR installing distributor. See Sweet's Catalog or write Holcomb & Hoke Mfg. Co., 1545 Van Buren St., Indianapolis 7, Indiana.



THIS HOME, built by L. I. Combs & Sons, typifies the successful use of *Thermopane* by builders in northern Indiana. It is an \$18,000, three-bedroom house with full base-

ment, garage and perimeter gas heat. It's all set for the cold Lake Michigan winds coming over the dunes. It has *Thermopane* insulating glass in every window.



"This sign packs a wallop for builders"

—says HENRY J. BULZA
of GARY, INDIANA



"This is *Thermopane** insulating glass." Those words in the window of a new house—or spoken to a home-buying prospect—are powerful selling. *Thermopane* is known—and wanted.

Henry J. Bulza of the Ambridge Lumber and Supply Company, Inc., Gary, Indiana, can tell you from experience that it works! Builders have bought from him over 1,000 lights of *Thermopane* in two panel window sizes. They're offering *Thermopane* in every window of houses ranging from \$18,000 to \$25,000. They give home buyers insulated windows right at the start, included in the mortgage package. There's no extra selling job for storm sash.

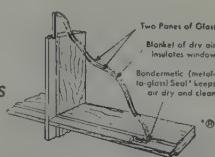
The use of *Thermopane* in panel windows gives builders an economical way to add the extra value and the sales appeal of *Thermopane*. Mr. Bulza says: "The panel window eliminates storm sash and cuts the builder's cost. Also, it gives the home owner more glass for less money. We can give him 82 sq. ft. of glass for about \$200. The same wall area with conventional windows would cost a lot more."

Write for full information. We'll send you full data on *Thermopane* sizes, types of windows for *Thermopane* and details on panel windows. Libbey-Owens-Ford Glass Co., 923 Nicholas Building, Toledo 3, Ohio.



Thermopane
INSULATING GLASS

LOOK FOR THE NAME ON THE SEAL BETWEEN THE PANES
For better vision, specify *Thermopane* made with Polished Plate Glass



New! Insulite announces asbestos-cement shingles

**New,
tested system
developed
by Insulite
gives you:**

1. Savings on every job

- Low applied costs
- Use less shingles per square
- No building paper required

2. Greater sales appeal

- Deep shadow-line beauty
- Quieter walls
- Increased insulation

3. Better construction

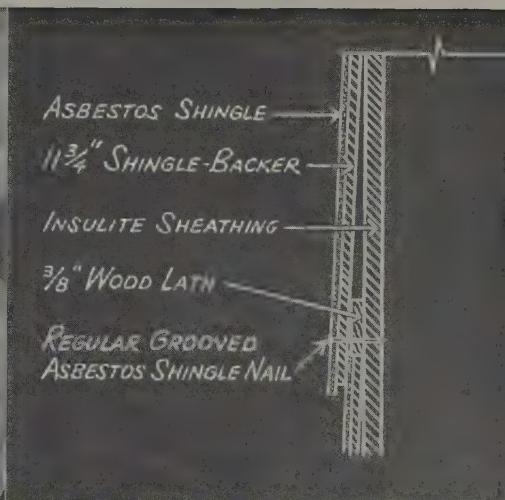
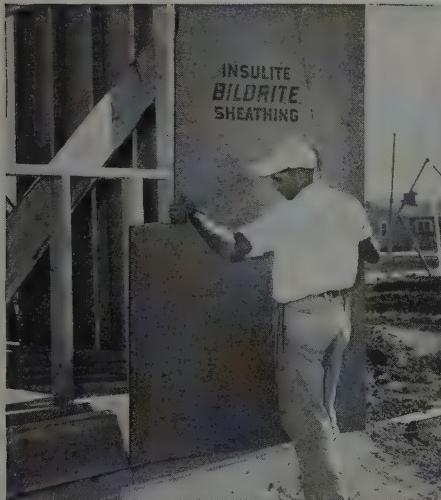
- "Cushioned" shingles give less chance of breakage
- Stronger, tighter walls

1. Yes, this is an asbestos-cement shingle sidewall! Insulite's new Shingle-Backer System gives it that attractive shadow-line that makes it look richer, more

expensive. Yet this better-built, better-looking sidewall can cost \$2.53 a square *less* to build than asbestos-cement shingles directly over wood sheathing!



system for applying to Insulite Sheathing !



2. Here's how it works. First, apply Insulite Sheathing. One carpenter can sheath 1,000 sq. ft. in 8 hours or less . . . cuts sheathing time as much as 43%. Eliminates need for building paper because it's waterproofed throughout with asphalt.

3. Next, apply 11 3/4" Shingle-Backer and the asbestos-cement shingles. This system goes on quickly and easily. Increases shingle exposure from customary 10 1/2" to 11". Provides a cushioned base for asbestos-cement shingles to reduce impact breakage.

4. System is self-aligning. Just line up each shingle with top of the Shingle-Backer and it's ready for nailing. No special nails or tabs are needed. Extra insulation value provided by Shingle-Backer over Insulite Sheathing makes your homes warmer. Quieter, too.



These builders found big savings!

"We've tried this new Insulite System."

"You might think that this new system would cost considerably more than asbestos-cement shingles applied directly over wood sheathing. Actually you can do it for about \$2.50 per square less!"

ED JUNCKER
Edward Juncker, Inc.
Overland, Missouri

"I can save \$42.00 on every job."

"Besides the savings that we can realize, I'm getting beautiful well-insulated walls, too. As soon as the first house using this new system was completed, I got an order for another just like it!"

EZRA OSTERHUS
General Contractor
Robbinsdale, Minnesota

SEND COUPON TODAY FOR DETAILS AND INSULITE COST-COMPARISON FOLDER. SEE HOW YOU CAN BUILD BETTER FOR LESS ON YOUR NEXT ASBESTOS-CEMENT SHINGLE JOB!

Build and insulate with double-duty

INSULITE



Made of hardy Northern wood



INSULITE DIVISION,
Minnesota and Ontario Paper Company,
Minneapolis 2, Minnesota

INSULITE IS A REG. T.M., U.S. PAT. OFF.

INSULITE, Minneapolis 2, Minnesota

Please rush data on your new Insulite Shingle Backer System for Asbestos-Cement Siding Shingles.

Name _____

Firm _____

Address _____

Could you offer such features
in an \$8,950 home?



BUILT-IN
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PASS-THRU

You can, if you build P&H Homes

Build P & H Homes, and you offer these luxury features and top quality construction for as little as \$8,950—practically anywhere. No question you'll sell more homes. And, with the P & H near-complete prefab home package, your site costs are shaved to the bone. So you'll profit more, too.

To Help You Sell—P & H Homes are nationally advertised in *Better Homes & Gardens*, *Living for Young Homemakers* and *Household*.

Start your own building boom this year with P & H Homes. Send for details today.

P&H HOMES DIVISION OF HARNISCHFEGER CORPORATION

52 Spring Street, Port Washington, Wis.



the **P&H** Line



Choose the floor that's NATURALLY beautiful!

BRUCE STRIP

Hardwood Floor

Prefinished for economy and durability

Owners get the biggest value in hardwood floors when you specify *Prefinished* Bruce Strip Floors.

The charm and natural beauty of this modern oak floor is preserved by the factory-applied finish. Tests prove it outwears surface finishes 3 to 1 and home owners find these prefinished floors far easier to keep clean and beautiful.

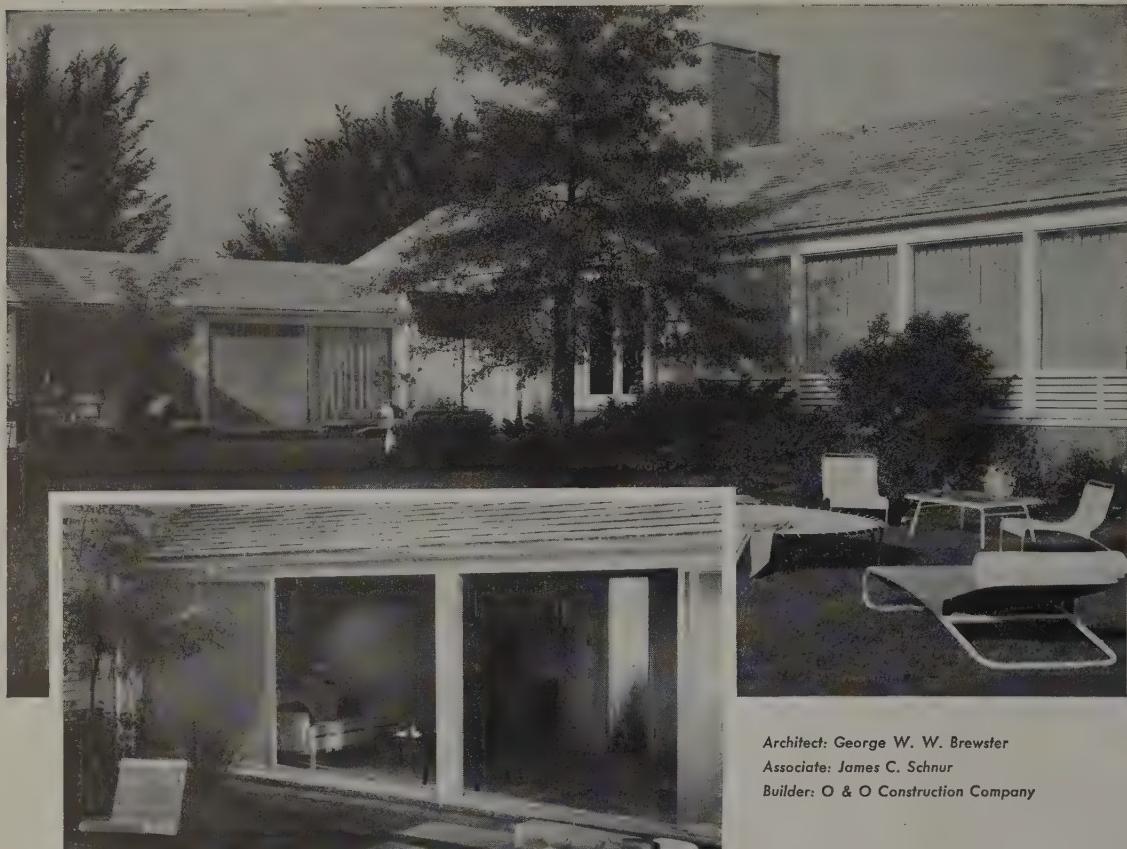
The cost of a *Prefinished* Bruce Strip Floor is usually less than for an unfinished floor of the same grade after you add the expense of on-the-job finishing. There's also a time saving of 3 to 5 days per house. Write us for complete information. See our section in Sweet's File.



E. L. BRUCE CO., MEMPHIS 1, TENN.

Hedrich-Blessing Photo





Architect: George W. W. Brewster
Associate: James C. Schnur
Builder: O & O Construction Company

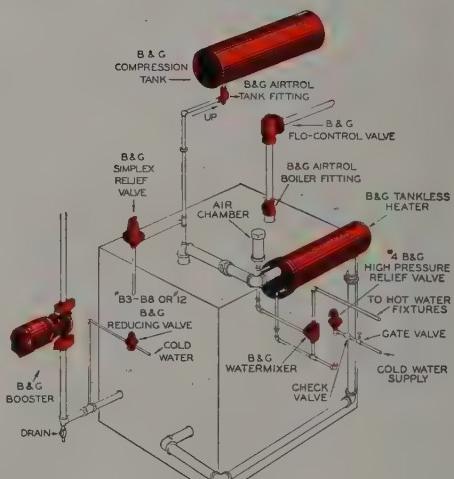
1952 "House of Ideas" selects **B & G Hydro-Flo*** Heating

Here is a striking example of the way in which B & G *Hydro-Flo* Forced Hot Water Heating solves the problem of heating homes with large glass areas.

In the "House of Ideas," sponsored by House and Garden, a 3-zone B & G *Hydro-Flo* System with radiant floor panels makes every inch livable space. B & G Comfort Controls (outdoor type) assure close control of temperature and provide compensation for wind effect.

This installation is indicative of the sweeping trend to forced hot water heating. Today you'll find B & G *Hydro-Flo* Systems in buildings twenty stories high... in garden apartments covering acres... in low-cost housing developments. The comforts of radiant warmth, plus positive heat control which keeps indoor temperature uniform and prevents fuel waste, are ample reasons for this preference.

For the complete story of this modern heating method, send for free booklet, "Capture the Sun with B & G *Hydro-Flo* Heating."



Typical B & G *Hydro-Flo* Hot Water Heating
Installation with tankless domestic water heater.



BELL & GOSSETT
COMPANY
Dept. CV-10, Morton Grove, Ill.

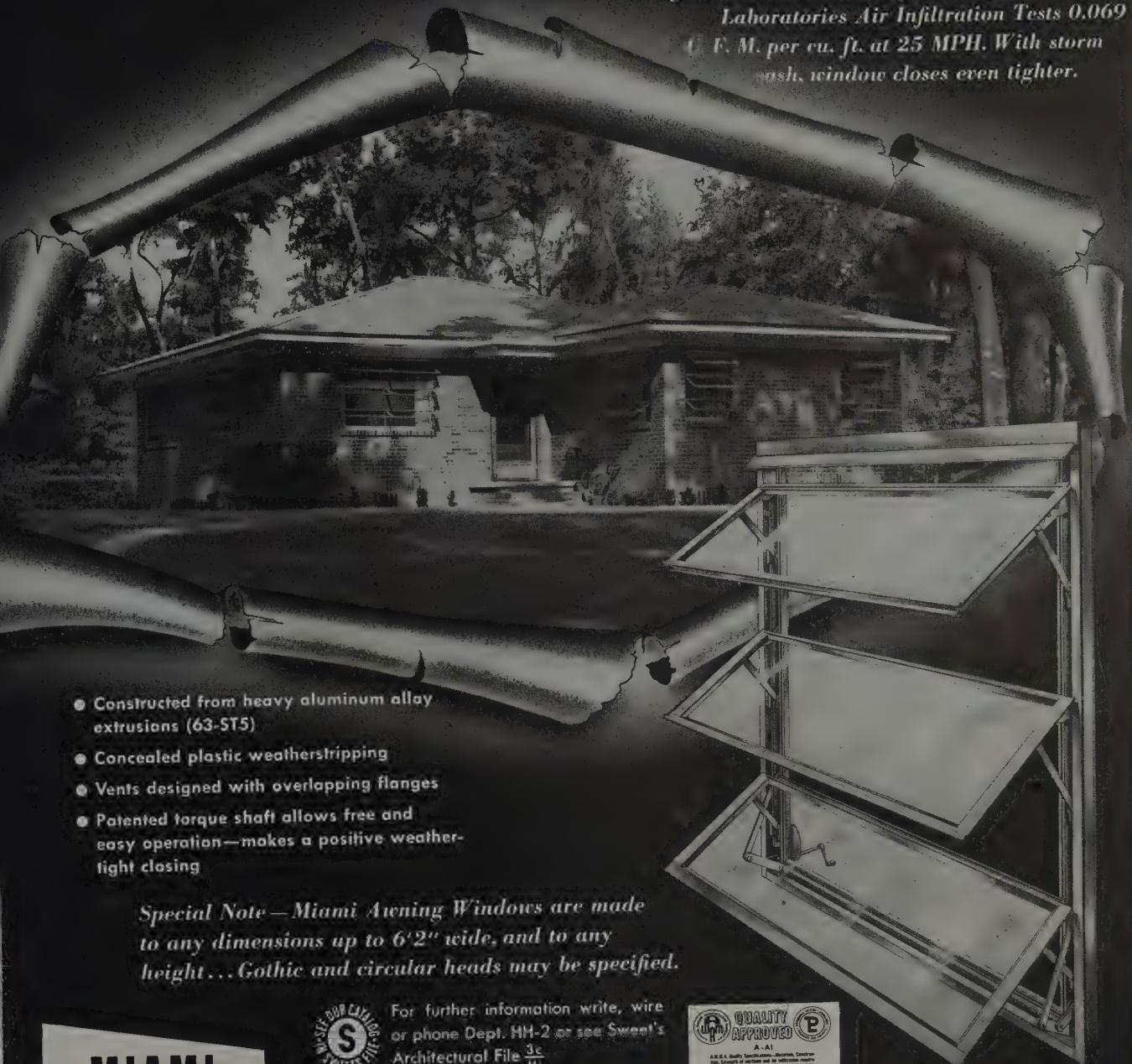
Canadian Licensee: S. A. Armstrong Ltd., 1400 O'Connor Drive, Toronto, Canada

Flash... Air Infiltration Tests Prove MIAMI WINDOW Tightest Closing Awning Type Window Made!

First by actual test—Pittsburgh Testing

Laboratories Air Infiltration Tests 0.069

F. M. per cu. ft. at 25 MPH. With storm
ash, window closes even tighter.



- Constructed from heavy aluminum alloy extrusions (63-ST5)
- Concealed plastic weatherstripping
- Vents designed with overlapping flanges
- Patented torque shaft allows free and easy operation—makes a positive weather-tight closing

Special Note—Miami Awning Windows are made to any dimensions up to 6'2" wide, and to any height... Gothic and circular heads may be specified.



For further information write, wire or phone Dept. HH-2 or see Sweet's Architectural File 3c MI



MIAMI
Awning
WINDOW

MIAMI WINDOW CORPORATION

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FACTORY No. 2—4610 N.W. 37th Avenue, Miami, Florida
MIAMI WINDOW CORPORATION OF MISSISSIPPI—Key Field, Meridian, Miss.
MIAMI WINDOW CORPORATION OF PANAMA—Panama, Canal Zone

Makes setting tile as easy as

1



2...



3...



3M CERAMIC TILE ADHESIVE CAN CUT COSTS UP TO 20%

"Easy" is the word for it. First, just "butter" on 3M Ceramic Tile adhesive and trowel it out. Its smooth, buttery consistency makes spreading a fast, simple job. Next set the tile in place. And finally, handle grouting just as always. What could be simpler, faster? 3M Ceramic Tile Adhesive cuts the time-per-job and gives the finest quality tile jobs at up to 20% savings in cost.

There are other advantages, too. 3M Ceramic Tile Adhesive will bond tile to nearly any kind of surface. That means that you can set "dry wall" . . . saving the costly installation of lath, plaster and mortar. Dries so fast that rooms can be used in 24 hours, making it ideal for remodeling. Waterproof, non-freezing, clean and easy to use . . . it's the modern way to set clay tile.

GET THE FACTS ON 3M CERAMIC TILE ADHESIVE

Try it on your next tile job. You'll sell yourself on this better way to set tile. Write Dept. 122 in Detroit for data and specification sheets. Sold everywhere by leading tile supply companies.



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GENERAL OFFICES: ST. PAUL 6 • EXPORT: 270 PARK AVE., NEW YORK 17 • IN CANADA: LONDON

MAKERS OF "SCOTCH" BRAND PRESSURE-SENSITIVE ADHESIVE TAPES • "SCOTCH" BRAND SOUND RECORDING TAPE • "SCOTCHLITE" BRAND REFLECTIVE SHEETINGS • "3M" ABRASIVE PAPER AND CLOTH • "3M" ADHESIVES AND COATINGS • "3M" ROOFING GRANULES • "3M" CHEMICALS

You are doing a great service for our industry in seeking every possibility to build a better house for less money. Don't get discouraged.

FRANK W. SHARP
*Frank W. Sharp Construction Co.
Houston 18, Tex.*

SLUM CLEARANCE

Sirs:

In his letter (H&H, Dec. '52, p. 140), Clarence C. Klein asks Alan Brockbank, "Where will the additional hundreds of thousands of families go when all such unfit housing has been removed?"

"Supply and demand" is the simple answer which "housing officials" and such have ignored for 20 yrs.

One million new homes are being built each year. The Department of Commerce says in 1950 there were 42,500,000 households. By 1960, they estimate 44,775,000 households. Ten million new homes in 10 yrs. will take care of the 2 1/4 million new households formed and will replace with better housing 7 1/2 million of "all such unfit housing."

Public housing costs twice as much, rents for half as much, and the taxpayer pays the difference.

WILLARD GARVEY
*Builders, Inc.
Wichita, Kan.*

FRANK LLOYD WRIGHT

Sirs:

. . . In the past you have saved Frank Lloyd Wright's work for special issues or big stories (AF, Jan. '38; Jan. '48; Jan. '51). It has seemed that you felt it necessary either to memorialize a man who is more vital than many of us can ever hope to be, or to neglect him entirely.

Suddenly you realize that here is a man working today whose works are important for today and should be published today and not tomorrow. Let us hope that your sudden rush to publish the Unitarian Chapel (AF, Dec. '52) and the Mossberg House (H&H, Dec. '52) is an indication of your consistent policy toward one of the few great men of our time.

ALLEN P. GOLDEN, *designer
New York, N.Y.*

HOUSE & HOME and FORUM, henceforth, will present a new FLLW building every few months.—ED.

CODESIGNER OF MILE HIGH PROJECT

Sirs:

Mr. Miller should have been credited as codesigner of the Mile High Denver project (H&H, Nov. '52).

The mistake was made in my office, as I realized from checking back into the correspondence. I regret very much that I did not spot the error before signing the letter in which it appeared.

EUGENE D. STERNBERG
Denver, Col.

RICHMOND HOMES

prefabricated to your plans

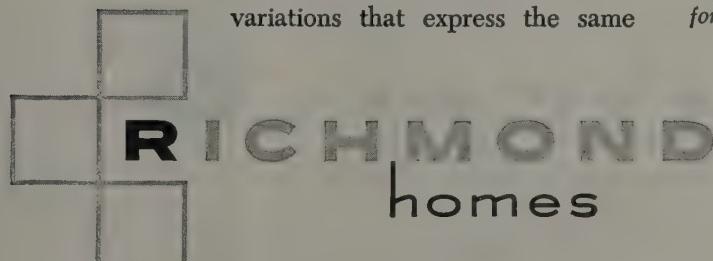


Now . . . for project builders . . . a new and unusual opportunity in prefabrication! Now . . . you can have completely prefabricated homes expertly adapted to your own tried and proven plans. Now . . . you can have the well-established economy of prefabrication, with new exclusive features, more advanced construction techniques plus

an entirely new concept of exterior variations that express the same

individuality as custom-built homes. As a manufacturer of pace-setting, quality homes for over seven years, it is with a deep sense of pride that we offer Richmond Homes to qualified builders under this unique plan.

Our program, naturally, has certain requirements relative to the financial status and experience of the builder. If you feel that you can qualify, we would like to hear from you. Write, wire, or phone for complete information.



RICHMOND BUILDERS, INC.

430 Northwest "K" Street, Richmond, Indiana



Residence of Mr. & Mrs. Charles Carnalier, Jr., Bethesda, Md., roofed with "Century" No. 5 Red Asbestos-Cement Shingles. Architect: J. Lee Lane.

Further proof that K&M shingles have what builders and owners want

The owner of the fine house pictured above has built more than 500 units in the area around Washington, D.C. When he built his own home, he specified a roof of "Century" asbestos-cement shingles—the same roofing that had more than proved itself in his business.

Hundreds of other builders and contractors have endorsed "Century" asbestos-cement shingles with similar confidence. There are many good reasons for this widespread approval.

First, builders have found a "Century" asbestos shingle roof is an economical roof—easily applied, large size units, with a minimum number of shingles to a square.

Second, they know this roof has great

appeal to home buyers. There are several attractive permanent colors among three shingle styles. "Century" shingles won't burn, rot, or rust, and they are impervious to rodents or termites.

To broaden their already wide acceptance—and thus make your selling job easier—"Century" asbestos-cement shingles are regularly advertised in *Better Homes & Gardens*, *Country Gentleman*, *Successful Farming*, and *Progressive Farmer*. For your reference, "Century" shingles are also illustrated in Sweets' Architectural and Light Construction files. Keep "Century" asbestos-cement shingles in mind for your next project.

Ask your K&M distributor for further information, or write directly to us.



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America's First Maker of Asbestos-Cement Shingles

A monthly report on important developments in the modernization of mortgage credit with particular emphasis on the expanding potential of the package mortgage, the open-end mortgage and the expandable mortgage.

Package Mortgage: FHA removes roadblock for lenders

Here is news that will make it much easier to borrow money on a package mortgage—the mortgage with the built-in sales appeal that lets a builder sell the house complete with stove, refrigerator, dishwasher, laundry, etc., *all with 20 yrs. or more to pay.*

Until now the biggest obstacle to the package mortgage has been FHA's so-called waste clause, under which FHA refused to insure lenders against the cost of replacing any equipment a dishonest defaulter might steal. Even though in practice such losses were rare, this little extra risk (which just *might* cost \$1,000 on a well-equipped house) kept many lenders from going along with the package mortgage plan.

Now the news is that FHA has agreed to insure all but \$100 of the total needed to replace stolen realty and repair wilful damage.

"This removes the lenders' only real objection to the package mortgage," says Claude L. Benner, president of the Continental American Life Insurance Co., Wilmington, Del. Reaction from all over the country echoes Mr. Benner's enthusiasm.

In announcing the new FHA policy, Commissioner Walter L. Greene further pointed out that the waste clause never has applied until the mortgage has been paid down to 75% of the appraised value. Since this takes about six years for high percentage loans, the package mortgage gives the lender nothing at all to worry about in the early years when the lender is most concerned about his liability. Average life of an FHA mortgage has been eight years.

The Veteran's Administration is even more liberal in its package mortgage policy. VA has no waste clause at all, covers with its guaranty any kind of household appliance that adds to homemaking convenience, provided it is in keeping with the character of the house and provided the lender maintains first lien status on the equipment.

Despite the difficulties created by its hitherto unlimited waste clause, FHA has recognized the merit of the package mortgage ever since this magazine first sponsored the plan. Its chief underwriter wrote: "Housing costs and the standards of com-

fort in housing . . . have been rapidly advanced by the introduction and development of mechanical equipment. Heating appliances, sanitary facilities, ranges, refrigerators and similar items, formerly considered as personal property and moved from house to house by their occupants, have gradually come to be considered as a part, and an essential part, of the house itself.

"Technical development in the mechanical field has not only improved the quality of these items but has also increased their number of appliances the prospective householder is inclined to consider essential to his well-being . . ."

FHA now insures package mortgages on property containing major appliances if the intent of the parties is to regard them as realty. Items are left to the determination of the parties unless they are inconsistent with local law and custom.

Today, ranges, refrigerators and garbage disposal units are eligible for inclusion in package mortgages in 44 states, laundry equipment in 45 states, dishwashers in 46 states, dryers in 24 states (with more states ready to approve them as demand grows).

On p. 79 is a schedule of household items that various FHA district offices consider eligible for inclusion in the mortgage.

The precedent that the package mortgage sets for US economy is the gradual inclusion of more and more products of US industry in homes of even low-income families.

How to Make Wardrobe Space 100% Accessible

Here's an example of how—with the help of a "Modrnfold" rolling post door—you can offer clients in the low-cost market one of the "extras" usually limited to high-cost designs: wide, roomy, 100% accessible wardrobe space.

The "Modrnfold" rolling post door folds open from both ends, can be stacked in either corner—or in the middle. Since no allowance has to be made for door swing, such a wardrobe fits easily into small bedrooms. And "Modrnfold" door shaves construction costs by saving installation time. Takes 30 minutes or less to install in most cases.



Your ideas come to life... for life with "MODERNFOLD" doors

You're sure to keep clients happy when you specify "Modrnfold"—the original folding door. Why? Because no other folding door anywhere equals "Modrnfold" for quality of design...for quality and strength of materials.

Your clients will like space-saving "Modrnfold" doors because they last longer, look better, operate easier. You'll like specifying "Modrnfold"—because the line is so complete. You can get exactly what you need in a "Modrnfold" door for every closure or space division problem.

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NEW CASTLE PRODUCTS, NEW CASTLE, INDIANA

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Only "Modrnfold" Doors
have center-line design—the
same number, same type, same
size hinges...both top and
bottom...on both sides of the
track.



Better Looking
Fabric covering completely
conceals all operating mech-
anism—no cornice needed to
hide track, trolleys and hinges.



Longer Lasting
"Modrnfold" doors have
more steel hinges both at top
and bottom; more steel in each
hinge; more vertical steel rods.

YOU CAN'T GET MORE IN A FOLDING DOOR



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New Castle Products
Box 518
New Castle, Indiana
Gentlemen:
Please send me full details on "Modrnfold" doors.

Name.....

Address.....

City..... County..... State.....

Types of household equipment

that can be included in the FHA-insured mortgage

by mutual consent of borrower and lender—

DISTRICT OFFICE	REFRIGERATORS		RANGES		LAUNDERING EQUIPMENT for sequence operation		AUTOMATIC IRONER		AUTOMATIC DRYER		DISHWASHERS for sequence operation		GARBAGE DISPOSAL UNITS	
	built in	plugged in	built in	freestanding with rigid connection	not requiring permanent installation	not requiring permanent installation	permanently installed	not requiring permanent installation	permanently installed	not requiring permanent installation	permanently installed	permanently installed	permanently installed	permanently installed
ALABAMA	E	E	E	E	NE	NE	NE	NE	NE	NE	NE	E	E	E
ARIZONA	E	E	E	E	NE	NE	NE	NE	NE	NE	NE	E	E	E
ARKANSAS	E	E	E	E	NE	NE	NE	NE	NE	NE	NE	E	E	E
CALIFORNIA—Los Angeles	NE	E	E	E	E	E	NE	NE	NE	NE	NE	E	E	E
Long Beach	E ¹	E	E ¹	E	E ¹	E ¹	NE ¹	NE ¹	NE ¹	NE ¹	NE ¹	E ¹	E ¹	E ¹
Sacramento	NE	E	NE	E	NE	E	NE	NE	NE	NE	NE	E	E	E
San Diego	E	E	E	E	NE	E	NE	NE	NE	NE	NE	E	E	E
San Francisco	NE	E	NE	E	NE	E	NE	NE	NE	NE	NE	E	E	E
COLORADO	E	E	E	E	E	E	NE	NE	NE	NE	NE	E	E	E
CONNECTICUT	E	E	E	E	E	E	NE ¹	NE ¹	NE ¹	NE ¹	NE ¹	E	E	E
DELAWARE	E ¹	E	E	E	E	E	NE	E	NE	NE	NE	E	E	E
DISTRICT OF COLUMBIA	E	E	E	E	E	E	E ¹	E ¹	NE	NE	NE	E	E	E
FLORIDA—Jacksonville	E	E	E	E	E	E	E	NE	NE	NE	NE	E	E	E
Miami	E	E	E	E	E	E	NE	NE	NE	NE	NE	E	E	E
Tampa	E	E	E	E	E	E	NE	NE	NE	NE	NE	E	E	E
GEORGIA	E ¹	E ¹	E ¹	E ¹	E ¹	E ¹	NE	NE	NE	NE	NE	E	E	E
IDAHO	E ¹	E	E ¹	E	E ¹	E	NE	NE	NE	NE	NE	E	E	E
ILLINOIS—Chicago	E	E	E	E	E	E	E	NE	NE	NE	NE	E	E	E
Springfield	NE	E	E	E	NE	E	NE	NE	NE	NE	NE	E	E	E
INDIANA	E	E	E	E	E	E	NE	NE	NE	NE	NE	E	E	E
IOWA	NE	NE	NE	NE	NE	NE	NE	E	NE	NE	NE	E	E	E
KANSAS	E ¹	E ¹	E ¹	E ¹	E ¹	E ¹	NE	E	NE	NE	NE	E ¹	E ¹	E ¹
KENTUCKY	E	E	E	E	E	E	E	NE	NE	NE	NE	E	E	E
LOUISIANA—New Orleans	E	E	E	E	E	E	E	NE	NE	NE	NE	E	E	E
Shreveport	E	E	E	E	E	E	E	NE	NE	NE	NE	E	E	E
MAINE	E	E	E	E	E	E	NE	E	NE	NE	NE	E	E	E
MARYLAND	E	E	E	E	E	E	NE	E	NE	NE	NE	E	E	E
MASSACHUSETTS	E	E	E	E	E	E	NE	E	NE	NE	NE	E	E	E
MICHIGAN—Detroit	E	E	E	E	E	E	NE	E	NE	NE	NE	E	E	E
Grand Rapids	E	E	E	E	E	E	NE	E	NE	NE	NE	E	E	E
MINNESOTA	NE	E	NE	E	NE	E	NE	NE	NE	NE	NE	E	E	E
MISSISSIPPI	E	E	E	E	E	E	E	NE ¹	NE ¹	NE ¹	NE ¹	E	E	E
MISSOURI—Kansas City	E ¹	E ¹	E ¹	E ¹	E ¹	E ¹	E	NE	NE	NE	NE	E	E	E
St. Louis	E	E	E	E	E	E	E	NE	NE	NE	NE	E	E	E
MONTANA	E	E	E	E	E	E	NE	E	NE	NE	NE	E	E	E
NEBRASKA	E ¹	E ¹	E ¹	E ¹	E ¹	E ¹	NE	E	NE	NE	NE	E	E	E
NEVADA	E	NE ¹	E	E	E	E	E	NE	NE	NE	NE	E	E	E
NEW HAMPSHIRE	E	E	E	E	E	E	E	NE	NE	NE	NE	E	E	E
NEW JERSEY—Camden	E	E	E	E	E	E	E	NE	NE	NE	NE	E	E	E
Newark	E	E	E	E	E	E	E	NE	NE	NE	NE	E	E	E
NEW MEXICO	E	E	E	E	E	E	E	NE	NE	NE	NE	E	E	E
NEW YORK—Albany	E	E	E	E	E	E	E	NE ¹	NE ¹	NE ¹	NE ¹	E	E	E
Buffalo	E	E	E	E	E	E	E	NE ¹	NE ¹	NE ¹	NE ¹	E	E	E
New York	E	E	E	E	E	E	E	NE	NE	NE	NE	E	E	E
NORTH CAROLINA	E ¹	E ¹	E ¹	E ¹	E ¹	E ¹	E	NE	NE	NE	NE	E	E	E
NORTH DAKOTA	E ¹	E ¹	E ¹	E ¹	E ¹	E ¹	E	NE	NE	NE	NE	E ¹	E ¹	E ¹
OHIO—Cincinnati	E	E	E	E	E	E	E	NE	NE	NE	NE	E	E	E
Cleveland	E	E	E	E	E	E	E	NE	NE	NE	NE	E	E	E
Columbus	E	E	E	E	E	E	E	NE	NE	NE	NE	E	E	E
OKLAHOMA—Oklahoma City	E	E	E	E	E	E	E	NE	NE	NE	NE	E	E	E
Tulsa	E	E	E	E	E	E	E	NE	NE	NE	NE	E	E	E
OREGON	E	E	E	E	E	E	E	NE	NE	NE	NE	E	E	E
PENNSYLVANIA—Philadelphia	E ¹	E	E	E	E	E	E	NE	NE	NE	NE	E	E	E
Pittsburgh	E ¹	E	E	E	E	E	E	NE	NE	NE	NE	E ¹	E ¹	E ¹
RHODE ISLAND	E	E	E	E	E	E	E	NE	NE	NE	NE	E	E	E
SOUTH CAROLINA	E	E	E	E	E	E	E	NE ¹	NE ¹	NE ¹	NE ¹	E	E	E
SOUTH DAKOTA	E	E	E	E	E	E	E	E ²	E	NE	NE	E	E	E
TENNESSEE	E ¹	E ¹	E ¹	E ¹	E ¹	E ¹	E	NE	NE	NE	NE	E	E	E
TEXAS—Dallas	E ¹	E ¹	E ¹	E ¹	E ¹	E ¹	E	E ¹	E ¹	NE ¹	NE ¹	E	E	E
Fort Worth	E ¹	E ¹	E ¹	E ¹	E ¹	E ¹	E	E ¹	E ¹	NE	NE	E	E	E
Houston	E ¹	E ¹	E ¹	E ¹	E ¹	E ¹	E	E ¹	E ¹	NE	NE	E	E	E
San Antonio	E ¹	E ¹	E ¹	E ¹	E ¹	E ¹	E	E ¹	E ¹	NE ¹	NE ¹	E	E	E
UTAH	NE	NE ¹	NE	NE	NE	NE	NE	NE	NE	NE	NE	E	E	E
VERMONT	NE	E	NE	E	NE	E	NE	NE	NE	NE	NE	E	E	E
VIRGINIA	E	E	E	E	E	E	E	NE	NE	NE	NE	E	E	E
WASHINGTON—Seattle	E	E	E	E	E	E	E	E	NE	NE	NE	E	E	E
Spokane	E	E	E	E	E	E	E	E	NE	NE	NE	E	E	E
WEST VIRGINIA	E	E	E	E	E	E	E	NE	NE	NE	NE	E	E	E
WISCONSIN	NE	E	NE	E	NE	E	NE	NE	NE	NE	NE	E	E	E
WYOMING	E ¹	E ¹	E ¹	E ¹	E ¹	E ¹	NE	NE	NE	NE	NE	E	E	E

E eligible

E¹ for rental units only

E² If connected to water and drainage system

NE not eligible

NE¹ will consider when local demand justifies

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Modest bungalow and pretentious mansion have a common problem, both must have a convenient way to dispose of garbage and trash. Calcinator solves the problem! Calcinator disposes of all burnable trash . . . all kitchen wastes . . . automatically, silently. It's completely trouble-free. Nothing to watch, nothing to turn. Just . . . wrap it! Drop it! Forget it!

Economical Calcinator is a must in modern housing. Specify the deluxe white enamel and chrome unit for kitchen installation or the standard unit for basement or utility room. Gas, electric or bottled gas models are available.

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BEHIND THE BLUEPRINTS



H. DOUGLAS BYLES, 30, **EUGENE WESTON III**, 28, and **WILLIAM L. RUDOLPH**, 29, are partners in a unique Pasadena, Calif. design organization that builds its own work, largely contract and speculative houses (p. 126). Byles and Rudolph won their architectural degrees from the University of California. Weston studied at the Los Angeles Art Center School. All worked for Whitney Smith and Wayne Williams before 1949, when Byles and Weston organized the present firm. Rudolph became the third partner in 1951.



Thirty-four-year-old **BURTON W. DUENKE** can say, with accuracy, that he has been in the building business 20 yrs. At the age of 13 he went to work for his father, a busy St. Louis builder, staying until 1942, when he entered the army. Separated in 1946, he went into the building business for himself in the St. Louis area. His first major subdivision came in 1949. In the ensuing years, Duenke has completed 600 houses, the most recent of contemporary design (p. 8).



HENRY-RUSSELL HITCHCOCK has been termed by the Museum of Modern Art "America's leading historian of modern architecture." Hitchcock has written 12 books on architecture, the latest *Victorian Architecture in Britain*, due this fall. Currently professor of art at Smith College, Hitchcock has also taught at Vassar, Wesleyan University, Connecticut College, N.Y.U. and Yale. Hitchcock is 49, a native of Boston and a Harvard graduate in architecture.



ARCHITECT CARL KOCH, 39, has been teaching at MIT and practicing in the Boston area since the end of World War II. Koch is a Harvard product and a navy veteran. Though a versatile designer of all building types, he is best known for his sound, direct house design covering every residential category: custom (p. 86), speculative, cooperative, prefabricated and apartment housing.



ELIOT F. NOYES, 42, left Harvard to join an archaeological expedition to Persia (1935-37), then returned for his master of architecture in 1938. Noyes was director of the Museum of Modern Art's Department of Industrial Design before World War II drew him into the air force. In September, 1947, he opened his own office in New Canaan, Conn., the new mecca for modernists (H&H, Jan. '53). Noyes does building (p. 118) and product design with equal ease and frequency.



Boston-born **ALFRED B. PARKER**, 36, won his B.S. in architecture from the University of Florida in 1939, studied in Stockholm and Mexico City. Parker taught architecture at his alma mater, served as a naval intelligence officer before opening his own architectural office in Miami in 1946. His busy practice has been largely residential, with notable emphasis on merchant builder design (the O'Neal House, p. 132).



Modernize any bathroom...

with AllianceWare

From every viewpoint, AllianceWare offers you the ideal sanitary ware for bathroom modernization. With 1/3 the weight of ordinary tubs, there's no need of installing special floor supports when replacing an old-fashioned tub with an AllianceWare tub or when installing AllianceWare in an additional "extra" bathroom.

Lighter weight also means there's no problem in getting the AllianceWare tub into second-floor bathrooms. Two men easily carry an AllianceWare tub—upstairs and around corners—without straining.

And you can offer AllianceWare to the most color-conscious home-owner. AllianceWare fixtures are available in five wanted decorator colors—gleaming pink, blue, green, tan, and grey—as well as lustrous white. AllianceWare in color costs only 10% more than white so you can install—at little extra cost to the

ALLIANCEWARE, INC. • Alliance, Ohio
Bathtubs • Lavatories • Toilet Combinations • Sinks



Reinforced construction
assures maximum
strength.



AllianceWare distinctive
modern design complements
any bathroom styling.



Gleaming, stainproof
porcelain enamel
surface cleans easily.



An integral
wall guard prevents
water seepage



"The simple, satisfactory solution to daylighting interior areas: prefabricated Wascolite Skydomes"



IN THE BREMER HOUSE at New Canaan, Conn., interior spaces are as brightly daylighted as perimeter rooms. Weatherproof and shatter-resistant Wascolite Skydomes transmit floods of light from the sky; permit interesting design effects as well. Extruded aluminum frames eliminate maintenance.



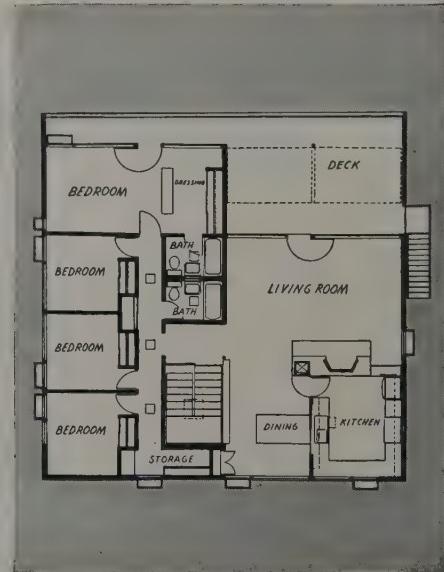
"VALUABLE ADDITION TO ARCHITECTS' VOCABULARY" says architect Eliot Noyes of Wascolite Skydomes. He uses them often; likes their clean design, simplicity of installation, their restful glare-free overhead lighting. Any interior areas are more useful areas with Skydome daylighting.



TWO INSIDE BATHROOMS need no artificial daytime light. A Skydome in each does the trick. White translucent acrylic domes protect privacy, assure pleasing daylight.



INSIDE CORRIDOR AND STAIRHALL are bright with daylight all day long; therefore safer, more cheerful. Wascolite Skydomes are virtually self-cleaning, maintain original efficiency.



PLAN SHOWS HOW Skydomes were spotted in Bremer house. You can use them in *any room, any type of structure*, where evenly distributed, easy-on-the-eyes natural light is desired.

WASCOLITE SKYDOMES
U.S. Patent No. 2610593
Other Patents Pending

Write for new file folder. Wasco Flashing Company, 88 Fawcett Street, Cambridge 38, Mass.



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Not just "thinking" of building

these $3\frac{3}{4}$ -million families with
Buy on their minds

have spent \$81,000,000 in construction
on one new BH&G home plan!

BUY

BH&G BUYOLOGICAL BRIEFS

- 1,298 SETS OF PLANS sold for BH&G Five Star Home 2204, within 30 days after being featured in BH&G.
- BUILDING PRODUCTS ad pulled 47% more in BH&G in less than a month than next-best-producing magazine.
- BUILDING MATERIAL DEALER PROGRAM, offering vast collection of sales helps, now going to 5,000 dealers.

MEREDITH PUBLISHING COMPANY
Des Moines, Iowa

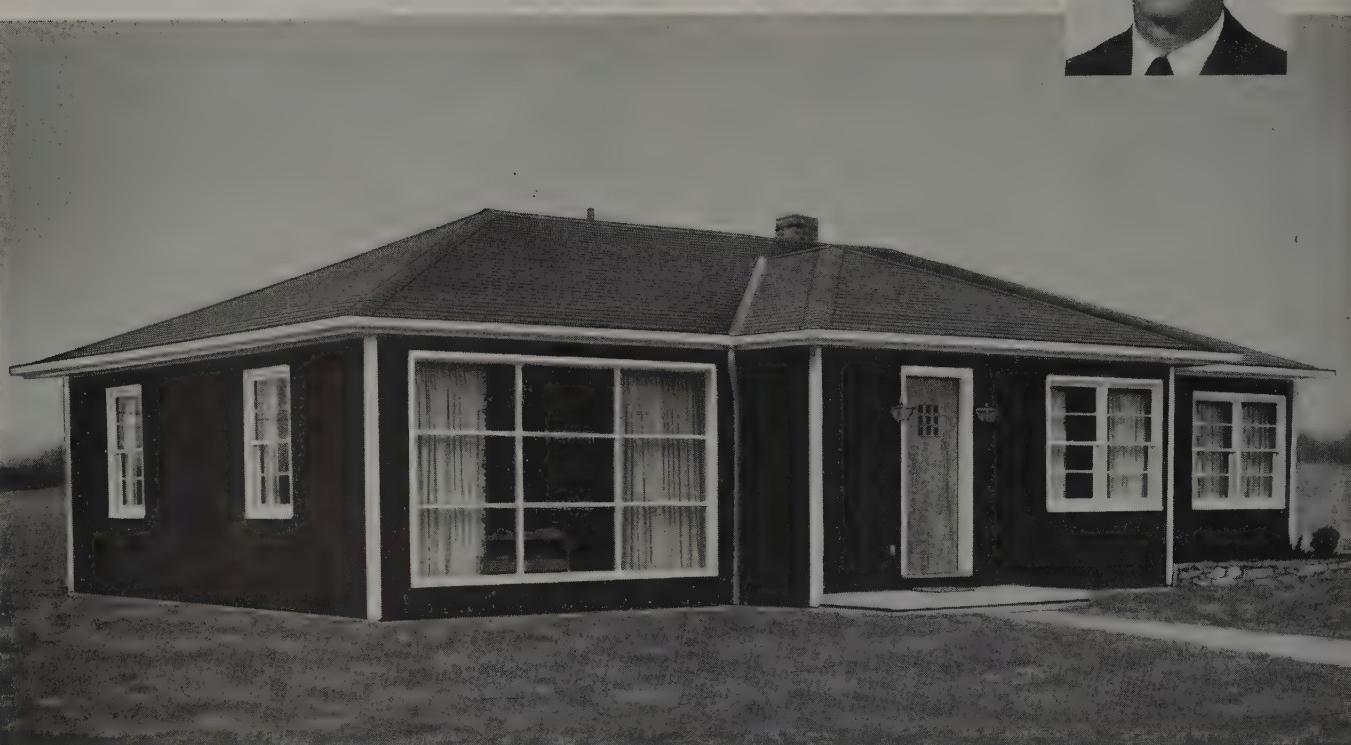
BUY

Better Homes
and Gardens

Serving 3 $\frac{3}{4}$ -million families—screened for the
BUY ON THEIR MINDS!

*"It's easier to sell our houses because
buyers trust General Motors Delco-Heat,"*

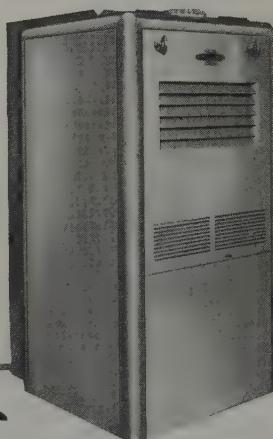
says GAYLORD M. CROTHERS, Washington, Pa.,
well-known Pittsburgh area project developer



Pittsburgh area builder builds sales-winning buyer confidence with **DELCO-HEAT**

DELCO-HEAT GA-120 GAS CONDITIONAIR

Delco-Heat ribbon type burners give cleaner, quieter flame. Multi-Rad Heat Transfer Unit delivers more heat to home, less up chimney. Delco built Rigid-frame Blower Motor. For natural, mixed, manufactured or LP gas.



TYPICAL of this project is this three-bedroom precut home supplied by Lumber Fabricators, Inc., Alabama, with a Delco-Heat installation made by Piatt Heating and Roofing Co., Washington, Pa. Mr. Crothers goes on to say, "A home buyer considers with confidence the house that's complete with well-known and accepted equipment. That's why we're building our houses at Franklin Farms with nationally advertised Delco-Heat, a product of General Motors. The Delco-Heat Conditionairs are doing an outstanding job of dependable and economical heating."

Warm air, hot water, or steam—gas or oil-fired—your Delco-Heat distributor has the answer. See him or write: Dept. HAH, Delco Appliance Division, General Motors Corporation, Rochester 1, N.Y.

For a good deal—

DEAL WITH DELCO



General Motors Engineering
Delco Production Skill



... your keys to sales success

The lesson of the Trade Secrets House

Would you like HOUSE & HOME to publish more "conventional" houses—more houses that try to achieve better living and lower cost without breaking away from traditional design?

Before you answer that question, we hope you will give a thought to the new HHFA research bulletin with its long list of things recent home buyers wish were different in their new homes—different room sizes, different circulation, different kitchens, better eating spaces, more privacy for the bedrooms, and many other changes. For it seems to us the real question on traditional vs. contemporary design is this:

Can you make all the changes people want without, at the same time, making a great change in the looks of the house?

Or perhaps a better wording of the question would be:

Can you afford to make all these changes without letting your architect take advantage of the economies offered by honest and simple contemporary design?

If you believe your customers are not yet prepared for modern design, just look for a moment at the crowds storming the Trade Secrets House wherever it is built and listen to what they are saying. Even the 23 sponsoring builders and the Trade Secrets Committee itself have been amazed to find the public everywhere so ready and eager for new ideas and the contemporary look. North, South, East and West the acceptance is the same—in Ohio, in Michigan, in Delaware, in Texas, in Colorado.

For example, in Memphis, Tenn. (population 394,012), more than 150,000 people have already lined up hour after hour to inspect it, sometimes blocking traffic even three miles away with their cars. Says Builder Wallace Johnson: "I never dreamed so many people in Memphis were ready for a house like this. As a result I am changing all my designs and construction methods. From now on that is the kind of house I will offer."

We believe the success of the Trade Secrets House should satisfy almost everyone that the market wants something new.

And now LIFE has let millions of families see that this kind of house is no longer a dream, but a reality which progressive builders are already offering.

In the sellers' market after the war people were grateful for any well-built house you could offer them—just as auto buyers in 1946 were glad enough to take 1941 models as fast as the postwar assembly lines could turn them out. But don't let your postwar sales fool you into thinking home buyers will always be satisfied with what they have been getting. They want something better. They want a 1953 house just as they want a 1953 car.

In a sellers' market it may be easier to offer something familiar than to explain why a new model is more livable, easier for housekeeping, cheaper to maintain; better suited to today's changing way of life.

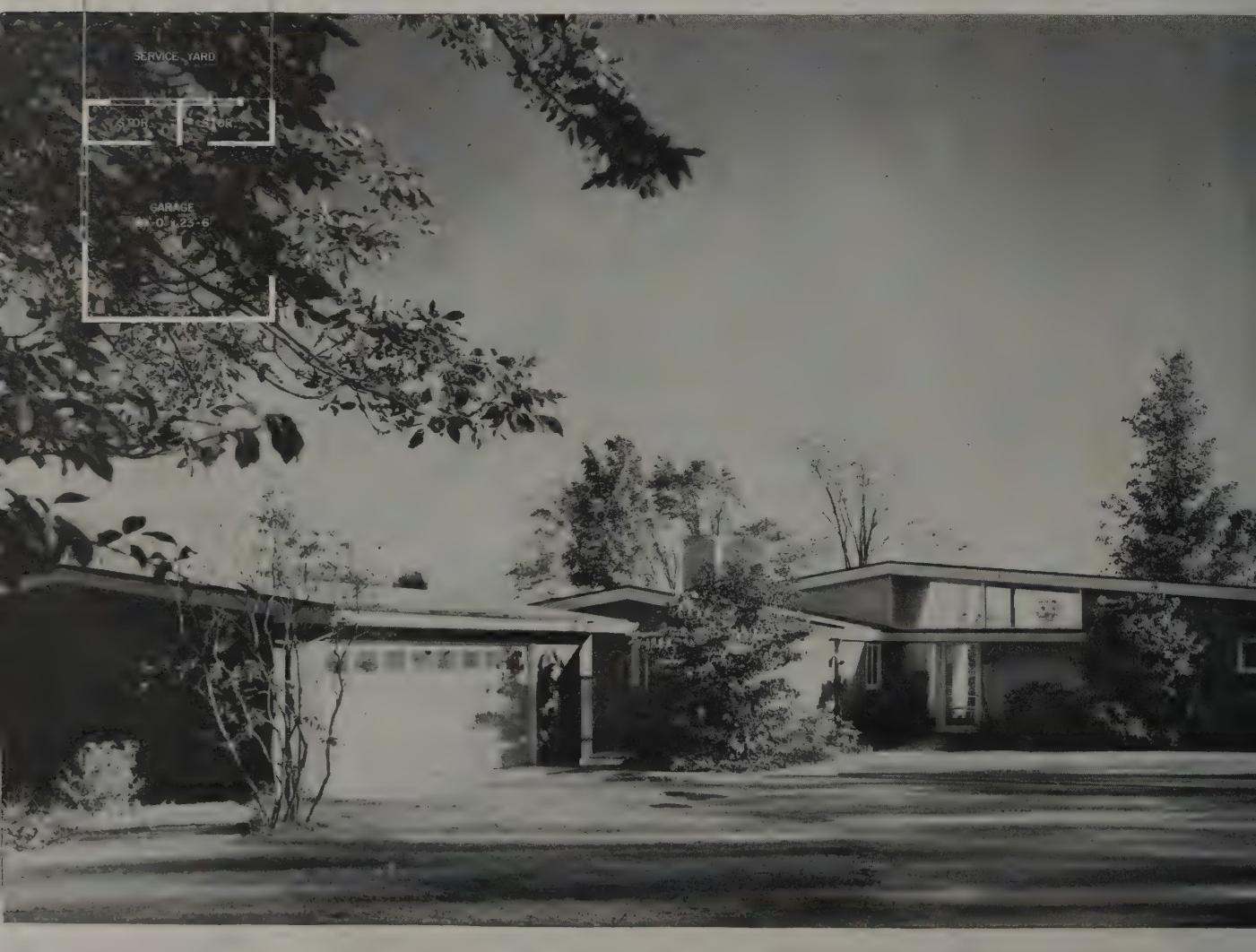
But in the buyers' market ahead, will such lazy selling be enough?
In a buyers' market can you make enough people dissatisfied with their old homes unless you dramatize your new and better values by giving your house a new look too?

The builders' houses we show you in HOUSE & HOME may be full of new ideas that started in California, but today they are best sellers everywhere—in Missouri (p. 106), in Florida (p. 134), in Ohio (HOUSE & HOME, Jan. '53, p. 144), in Washington, D. C. (Nov. '52, p. 143). We believe houses like these can keep your sales booming in tougher markets against tougher competition.

P.S. For the practical importance of the more advanced custom-designed houses we have been showing you, turn to p. 122.



Main approach from north (below): kitchen-garage wing at left, bath windows of bedroom wing at right



Rear view, above, shows how long, gently sloping gable runs the length of the house, unifying living and bedroom wings and central sun court. Sliding glass wall at right opens living room to south sun, breeze and the major view.

CARL KOCH & ASSOCIATES, architects

MARGARET M. ROSS, associate

JOHN F. CAREY, contractor

What makes this a good house?

Measured against the 10-point check list below for comfort, economy and good looks, would your own houses score as high?

Photos: © Ezra Stoller



Here is a New England house every bit as rangy and inviting as a Western plains house, yet as clean and conservative as a Yankee barn. It shows how handsome a house can be without fuss and fancy leather: rustic bargeboards, battens and beams, and the other synthetic jinglejangle.

The appeal of this house is basic: it not only looks well but there is a logical reason for everything in it. Its design fundamentals could be profitably applied to any custom-built or mass-produced house. To see why, take the design apart and put it together again, checking from the ground up:

1. Is it properly oriented?

Yes No

Major rooms (living, dining, study, bedrooms) face south to summer breeze, winter sun--away from the street and toward the main view. Services (kitchen, storage, baths, dressing) line up to give privacy along the street side to the north.

2. Are the rooms well related?

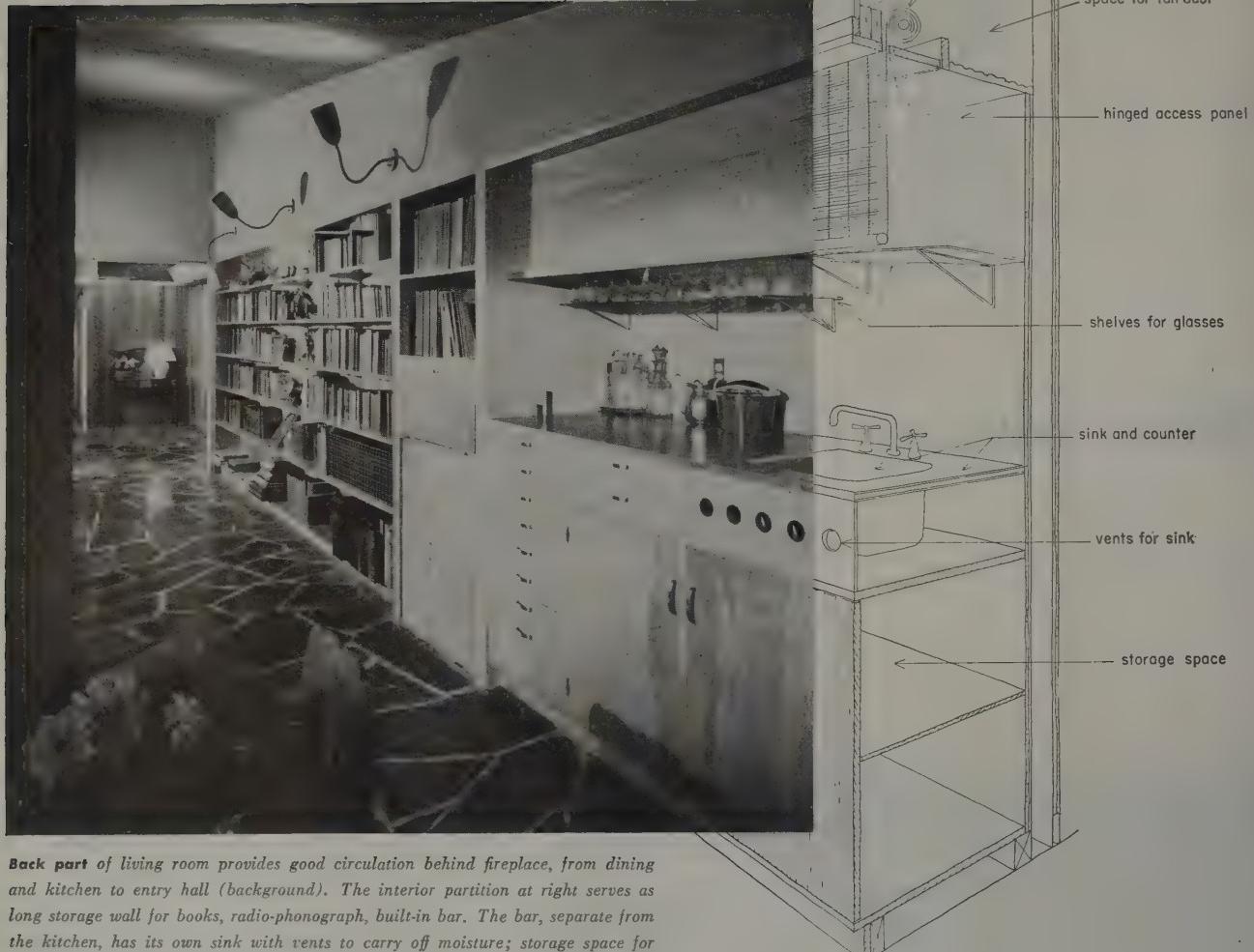
Yes No

There is a clear separation of functions: the nighttime zone conveniently groups bedrooms, baths, etc.; the daytime wing wraps living, dining, kitchen and servant's quarters around an interior heater-storage room. Linking the two wings yet keeping them separate is a narrow "waist," a formal hall that opens through glass walls to a small court in the rear.

3. Is the circulation good?

Yes No

Traffic moves in a straight line in either direction from the central entry. The sound principle of throwing the living room to the outer corner at the L, and letting circulation hug the inner angle, keeps the living room undisturbed by passers-by. The fireplace acts as a sufficient screen dividing this room into living, dining, and dining and bar-phonograph areas. There is no wasted hall space.



Back part of living room provides good circulation behind fireplace, from dining and kitchen to entry hall (background). The interior partition at right serves as long storage wall for books, radio-phonograph, built-in bar. The bar, separate from the kitchen, has its own sink with vents to carry off moisture; storage space for bottles below. Duct from kitchen fan runs above it.

4. Does it have privacy?

Yes No

No major windows face the street. The zoned plan allows adults to entertain in the living areas without disturbing children asleep in the bedrooms. Small, high windows facing the sun court preserve the privacy between the two wings.

5. Does it make use of the outdoors?

Yes No

Wide glass areas and sliding walls give interiors the advantages of a solar house, sun-filled in winter, open to the breeze in summer. The sun court and the living room's garden corner punch into the outer perimeter of the house, bringing nature part-way inside.

6. Is it cost-conscious?

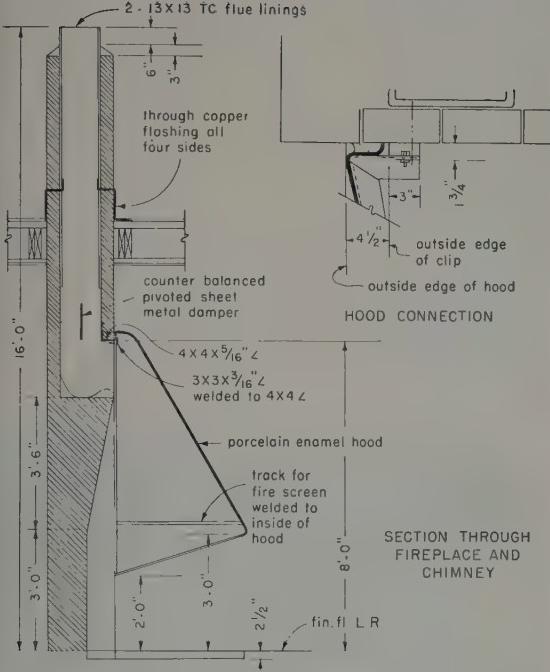
Yes No

Familiar 2 x 4 stud-wall construction is used throughout except at large glass areas. Koch has simplified and standardized window details for almost all his houses, uses them over and over (see detail drawings, p. 91).

7. Does it use materials, colors, textures well?

Yes No

With a human yet judicious hand—natural cedar siding is stained a warm brown; white trim is neat. Inside, birch cabinets show the natural grain of the wood; white or neutral wall and ceilings allow furniture colors to dominate. Dramatic floors are of deep green Vermont marble veined with white.



Freestanding fireplace (detail above) with enameled steel hood can be seen from three sides, defines living, dining and bar areas. Note skylighted garden corner

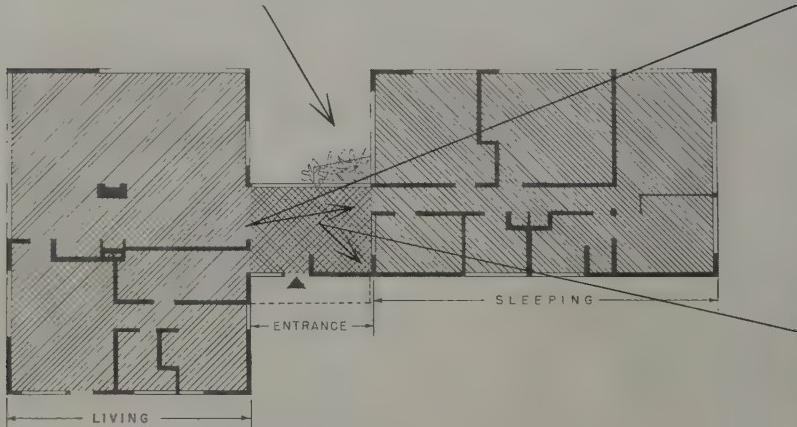




"Pocket" court on south side of entry hall is planted, trellised above with exposed rafters. Bedrooms are at left; high windows prevent looking into study from the court.



Entry hall, above, is filled with sun and shadow patterns from adjacent court. Below, front door is flanked by opaque glass panel and big coat closet; high windows with light cove maintain street-side privacy. Interior windows at left light bedroom hall and storage room. Floors are of green verde, a richly-grained Vermont marble.



8. Does it hold together visually?

Yes No

Koch's low-raking roof has major lessons to teach most architects and builders. Not only does it prove that the main gable can well span the house the long way, but also that an unbroken roof line can sweep all the breaks and jogs of walls and openings beneath it into a serene unity. By contrast many a builder's house has a ragged roof edge in the mistaken effort to gain "variety" and "interest."

9. Does it express its function?

Yes No

It looks like a house rather than an abstract composition—proportioned to human beings, crisp and accurate without being overly geometric. It looks like somebody's home, not a cow shed or a castle.

10. Does it belong where it is?

Yes No

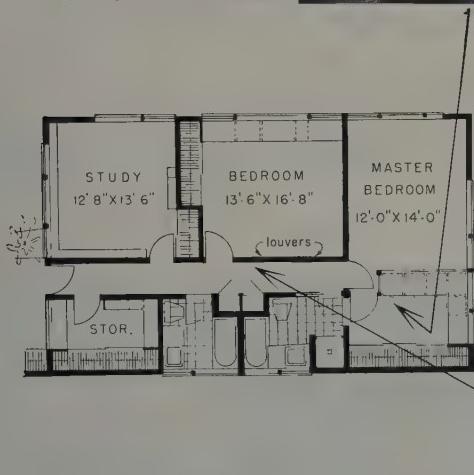
This house is not a transplant. It seems to belong in the Northeast, not in Florida or Wyoming. It is fresh, dignified and a good example of the new regional architecture that Koch has helped develop for New England.



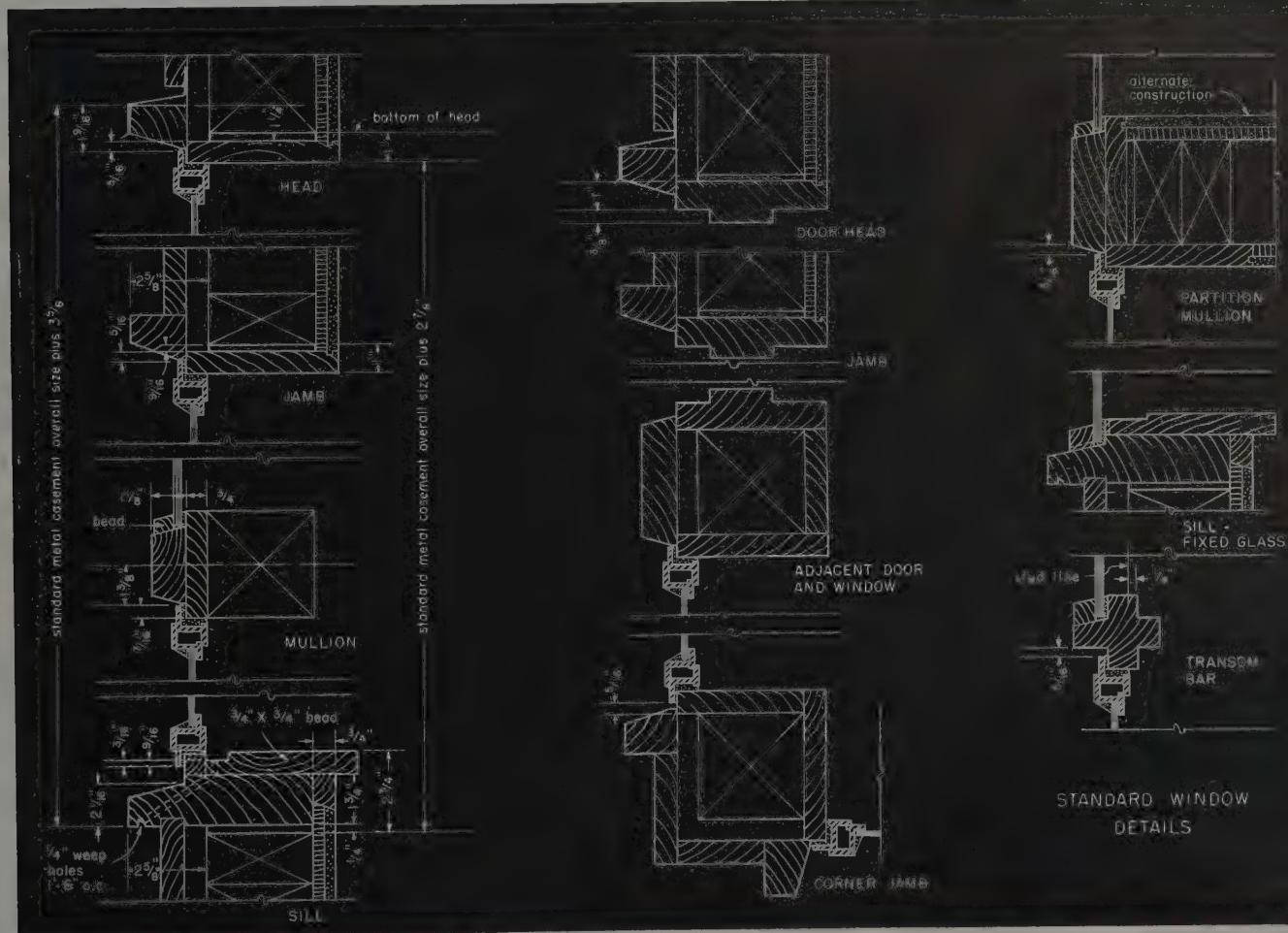
Master dressing room has ample supply of built-ins finished in birch. Partition of obscure patterned glass borrows light from the bedroom.



Fixed wood louvers in hall provide middle bedroom with cross-ventilation. Hinged plywood panels on bedroom side swing up to close them off.



Simplified details: casing eliminates need for premium lumber, perfect plumb or special flashing at window sill





1880...



1952...

1953



Bettman Archive

Little more than 25 years ago
every visiting European who went home
agreed on one thing about America:
the bathroom was by far its best thing.
Was their praise so heady
that we've been standing pat ever since?

39 ways to build a better bathroom

In a buyers' market every merchant builder knows the bathroom can help make sales

Here in check-list form are:

20 ways to improve the minimum bath (at no extra cost);

14 features to add to the bigger bath (and finance improvements);

5 plans for providing bathrooms in the 3-bedroom house

and a radically different, open-plan bath

Every homebuilder knows how important a good bath and a good kitchen are if he wants his houses to sell themselves. But how many builders take advantage of all the new ways to add sales appeal to the bath?

Many builders answer, "the bath costs so much money already that we can't afford to spend any more." They also say that although most home buyers want a better bath they can't afford to pay any more for it.

But here are three important facts to remember:

Most builders are forced to waste more money in the bath

than anywhere else in the house. Part of this waste is forced on them by antiquated local plumbing codes. Part is forced on them by the make-work labor restrictions of the plumbers and tile setters. But some of the money most builders waste on the bath could be saved if they took advantage of the new construction economies worked out in the past few years.

Home buyers can pay a little more money for a better bath if the FHA mortgage pattern is changed (as now seems likely) so that most of the extra cost can be added to the mortgage instead of to the down payment. Another \$100 on the mortgage adds only 2¢ a day to the carrying cost of the house, and there are many new bathroom improvements that should be worth much more than 2¢ a day to the average family.

The buying public wants and will pay for a bigger bath

as many builders have already found out. Half the buyers who were offered the choice of a deluxe or extra half bath in various parts of the country were glad to pay from \$100 to \$150 extra to get either.

So on these next 12 pages are:

First, 20 ways to add sales appeal to your bath without making it any bigger than the present 5' x 7' or 8' minimum and without adding as much to the cost as you could save by using the newest cost-cutting tricks listed on the next page.

Second, 12 new sales-appeal ideas you could offer for little more than 2¢ a day added to the carrying charge of the house.

Third, a radically different bathroom idea developed by architects for very plush houses and now given unexpected HHFA benediction in a very low-cost version.

Five ways to cut bathroom costs

Here are five suggestions that the Small Homes Council of the University of Illinois recommends to help most builders cut their present bathroom costs. Probably no one builder can save more than \$100 because he already makes use of some of the techniques.

1. Frame your bath so the wall with the pipes (and the opposite wall) are not bearing walls. Probable saving in labor and material: about \$15.

2. Build this nonbearing pipe wall as two separate walls on either side of the plumbing (H&H, Jan. '53, p. 157). Probable saving on plumbing and carpentry labor: from \$25 to \$30, because plumber has less notching to fit pipes.

3. Get a window that will span the full width of the bath from corner stud to corner stud and set it right up to the top plate. This offers the added advantage of making a small bath *look* bigger. Probable saving from the elimination of piecing above and alongside the window: \$25.

4. Use a precast plumbing tree as the Levitts and Andy Place do. Few codes actually forbid this economy. Probable saving: \$35.

5. Line up all your fixtures along *one* wall with the standard spacing recommended by the collaborative AIA-NAHB committee (from center of toilet drain to center of wash-basin drain, 2'-0"; from center of wash-basin drain to center of bath drain, 2'-4"). This will encourage standardization of plumbing assemblies adapted to in-line baths backed up on kitchens. Probable saving: \$50.

All this is over and above the savings builders could achieve by persuading their local code authorities to adopt the new National Plumbing Code, which could amount to \$50 to \$100 on a minimum bath—\$50 if the present code is fairly reasonable, \$100 if it is typical of the wasteful practices required by most codes.

Tiling is another place to look for savings. The always popular ceramic tile is now being used by many builders at a cost of \$1 per sq. ft. instead of \$1.50. The secret is to use a thin-setting bed of adhesive rather than mortar. Adhesives have been used for 20 yrs. but many builders have discovered this faster method only recently. In some places carpenters are beginning to set tile just as they handle dry wall. When they can get ceramic tile at a reasonable rate, many builders will use more of it to glamorize their bathrooms, running it up to the ceiling around the tub or shower. Manufacturers of other wall materials, such as porcelain enamel tile, waterproof plastic board or plywood, are bringing out attractive products at highly competitive prices.

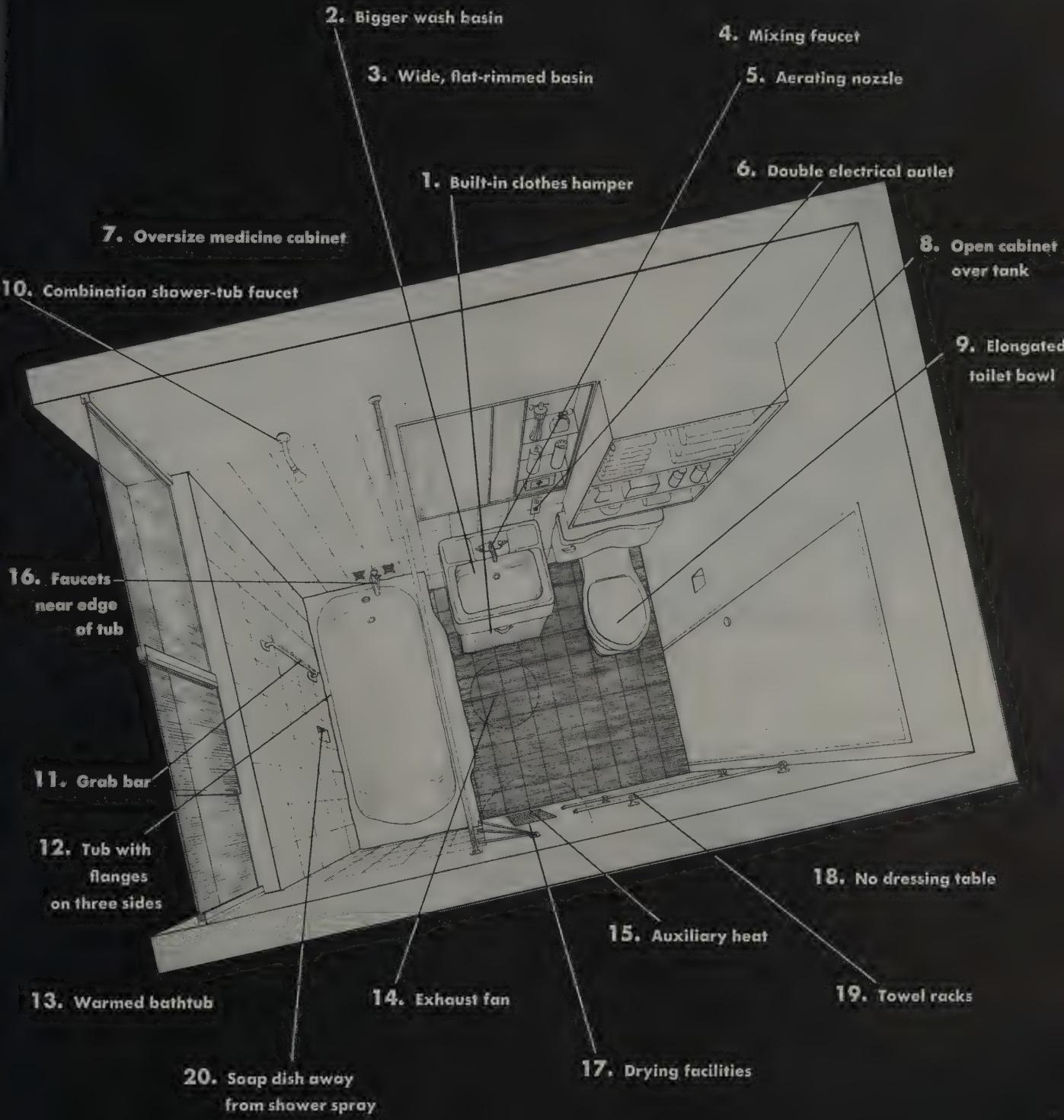
20 ways to better the small bathroom

Here are inexpensive ways to improve the minimum-sized bath with the savings you realize from cost-cutting techniques. All have obvious sales appeal. All are simple things that add up to a heap of convenience and comfort, cost builders next to nothing to install.

1. **Install a built-in clothes hamper** or storage cabinet under the wash basin. Every family wants more bathroom storage and this is the easiest place to provide it. Architects Matern & York recommend that a hamper be put under the lavatory. Many builders, however, prefer to add a built-in cabinet. A cabinet should not cost much extra and some savings come from the fact that no finished floor is necessary under it. While some sink-cabinet combinations cost almost twice as much as wash-basins alone, many builders believe the added sales appeal is worth the cost. Builders who have a mill shop can make their own cabinets.

2. **Provide a bigger wash basin.** Some women wash their hair over the kitchen sink because the bathroom basin is not big enough to keep them from splashing the floor. Small wash basins actually save little cost. Fritz Burns, who uses a 21" x 23" basin with a 4" flange, estimates he could save only \$2 or \$3 by using a 17" x 19" basin. A big enough basin might even be used to wash the baby.

3. **Use a wash basin with a wide, flat rim.** Many people prefer to leave such daily used things as mouthwash, tooth paste, razors on the sink. The desire to have these things at hand can be met inexpensively by providing more out-of-cabinet space around the basin.





Low-cost hardboard is used for cabinet sliding doors and as enclosure for storage under basin. This is a good example of storage space in a small bathroom at very low cost.

Crane Co.



Mixing faucet to prevent scalding when washing under running water is thoughtful device that can be utilized at no additional cost by builders alert to simple bathroom needs.

4. Put a mixing faucet, instead of two separate faucets, in the basin. Almost everyone prefers to wash his face and hands in running water. Water from separate faucets is either too cold to wash away dirt or too hot to touch. Bill Levitt on the East Coast and Fritz Burns on the West Coast agree that the mixing faucet should cost a smart buyer no more than a pair of standard separate taps.

5. Use a faucet with an aerating nozzle. No one wants water splashing on sleeves, dresses or on the floor. Extra cost: from 70¢ to \$1.

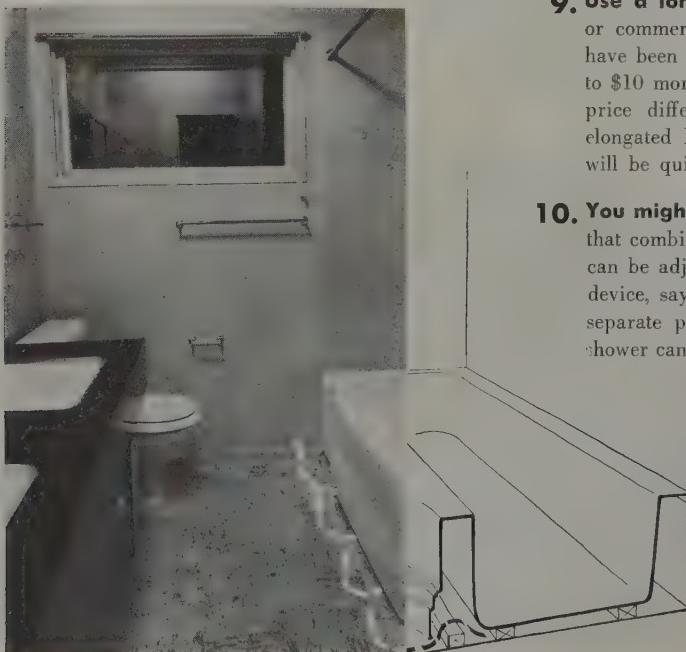
6. Provide a double electrical outlet for appliances used in the bathroom. Use of hair dryers, sun lamps and electric razors requires at least one more outlet than is generally provided. For safety's sake put the outlet out of reach of the bathtub.

7. Install an extra large medicine cabinet over the basin. When the wall is nonbearing, studs can be spaced wider to take the wider cabinet. Almost no cabinet is big enough for storing all the potions, pills and paraphernalia that practically every American family wants to stuff into it (people are buying more drugs and toilet goods than ever before). Some builders who recognize the need for jumbo-sized cabinets mill their own. Manufacturers are now marketing big cabinets with sliding doors and ample mirror area. Prices range from \$35 to \$50, but one extra large cabinet manufactured without sliding mirrors (they can be purchased locally) sells for \$17.50.

8. Provide all the storage you can for towels and bathroom supplies right in the bathroom. The 5' x 7' bath is so small that almost the only practical space available is over the toilet tank, which should have a flat top for storage. Extra cost: nothing. In over-the-toilet space 30" wide and 4' deep, to avoid mental hazard, Fritz Burns builds his storage with a slanted front 8" deep at the bottom, 12" deep at the ceiling. His cost for this storage facility is only \$5. If your bath is 5' x 8' instead of 5' x 7', take advantage of the extra foot to build a floor-to-ceiling storage space in the corner beside the toilet with open shelves at the bottom and a closed cabinet above. Total cost: less than \$20.

9. Use a long-lipped, elongated toilet bowl. No hotel, office or commercial building would use anything else. Homebuilders have been slow to take up this improvement. It costs from \$7.50 to \$10 more today than the standard models used in homes. The price differential might disappear if more builders used the elongated bowl. Every woman who sees a model home with it will be quick to appreciate its advantages.

10. You might install a combination shower-tub spray faucet that combines the tub faucets and shower nozzle in one outlet. It can be adjusted for shower or tub filling. Fritz Burns uses this device, says it not only saves him from \$3 to \$5 on the cost of separate piping but is a big sales aid since the height of the shower can be regulated for adult or child (see photo p. 97).



Heat under tub eliminates the need for grille or register, provides creature comfort. Warm air from furnace enters from under tub which acts as a plenum. Tub stands on 1" blocks.

11. Put an adequate hand grip beside the tub. For safety it should be anchored to studs and set vertically or at a 45° angle so there is no temptation to hang towels on it. A good husky grab bar costs \$4 to \$5 and goes in as the tile is set.

12. Be sure to choose a tub with flanges to go behind the tile on the three sides where the tub meets the walls. Home owners who complain about water seepage that rots away walls around tubs have legitimate gripes.

13. Why not have the bathtub warmed? A cold bathtub has sent cold shivers up the backs of many users, particularly on cold winter days. If you use hot-air heating, bring it into the bathroom underneath the tub so the whole tub acts as a plenum (see Trade Secrets house, H&H, Jan. '53, p. 104 and bottom photo, p. 96). Andy Place of South Bend reports the added cost as \$9. Some builders think it saves money because no grille or register is needed.

14. Install an exhaust fan in the ceiling. It need be vented only to the open attic, where ventilation usually is more than sufficient. A fan will remove bathroom odors and steam faster than a window, which is just as likely to blow them into the house as out of it. (Getting moisture out of the air is doubly important if the house is air conditioned.) Furthermore, a fan will not chill the bath in winter as an open window will. The smallest fans cost from \$20 to \$25 and will do the job. If you don't want to spend an extra \$25, use a fixed window in the bath and save enough over the cost of an openable one to pay for the fan.

15. Offer auxiliary electric heat in the form of either a heat lamp (cost: about \$5) or radiant-heat panel (about \$35). Remember that the state of undress of most users of the bathroom calls for additional heat—at almost a moment's notice and on cold mornings the first room to need heat is the bath.

16. Set the bathtub faucet handles closer to the edge of the bathtub rather than directly beneath or above the outlet. Bathers almost invariably turn on water for shower or tub before stepping into it. Placement closer to the edge eliminates the awkward twist the user must make to turn the water on. Cost for bend in the plumbing: about \$3.

17. Provide facilities for drying the light laundry almost every woman does in the bathroom. A three-bar, hinged rack such as women use to dry dish towels in the kitchen can be placed over the towel rack, or a simply built space frame of lateral members made of 1" x 1"s and full rounds can be erected at low cost between lavatory and toilet or bathtub and lavatory (see photo, p. 101). A rack with telescopic arms is also available. The man who is confronted with an assortment of dripping nylons and underwear when he reaches for a towel will give you a vote of thanks for providing a means to clear the towel rack from constant clutter.

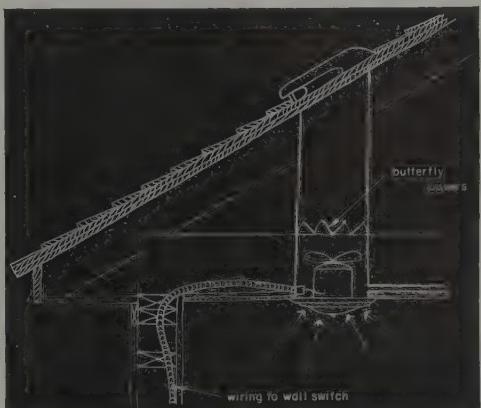
18. Don't put dressing-table facilities in the minimum 5' x 7' bath. It will cause rush-hour bottlenecks. Only when space and funds are available can you convert the bath into a combination bath-dressing room.

19. Provide generous towel racks. Best placement for one is directly opposite the wash basin. It should be from 4' to 4½' long instead of the standard length and can have two or three bars. Towel rings behind the door can supplement that wide bar.

20. Move the bathtub soap dish away from the shower. Many soap dishes are constantly being flooded with water when the shower is turned on, thus dissolving the soap. Set the dish well away from the spray of the shower.

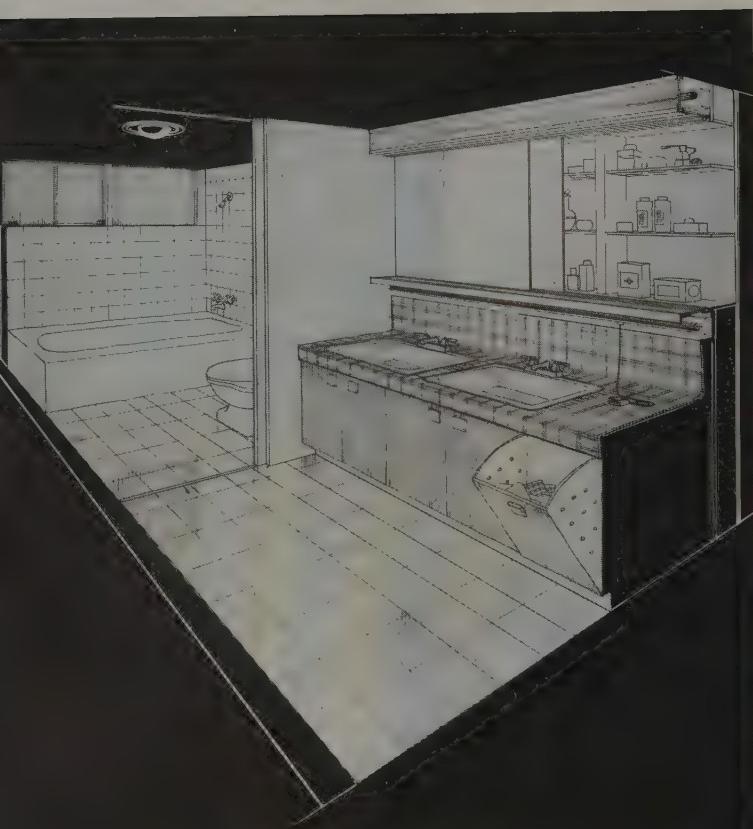


Adjustable shower nozzle eliminates the need for additional tub faucets. Shower can also be lowered for washing of smallest children.

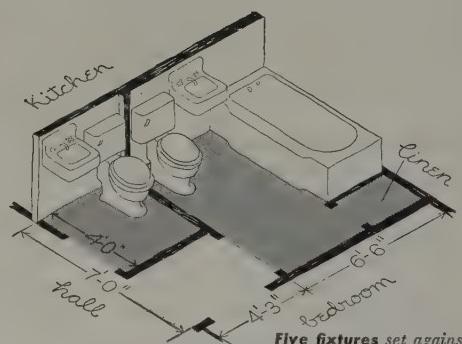
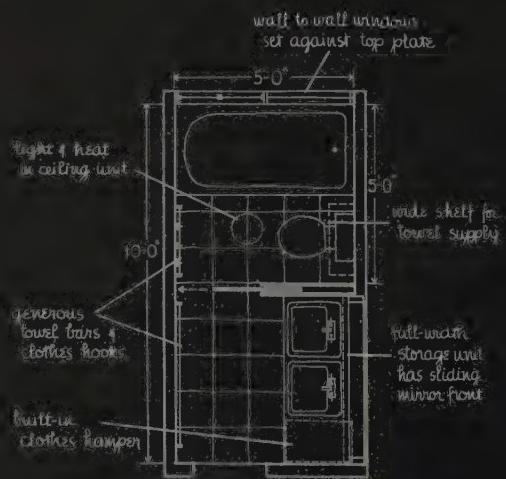


Exhaust fan can ventilate bathroom quicker, more efficiently than windows which might blow odors into as well as out of the house.

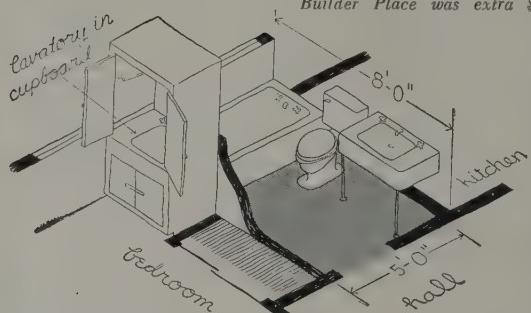
What type of bathroom for the three-bedroom house?



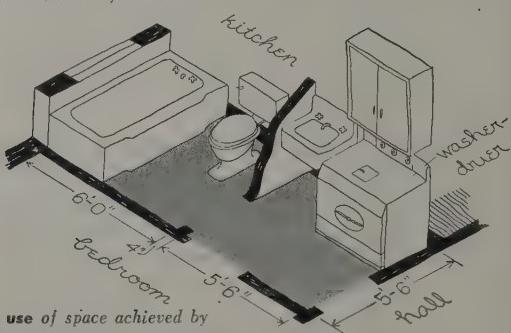
A bigger bath doubles or triples use of room by addition of 15 sq. ft. and by separation of tub and toilet from lavatories. Clothes hamper, towel cabinet, extra-wide medicine cabinet provide ample storage. Other ideal features: auxiliary heat, direct illumination, counter top.



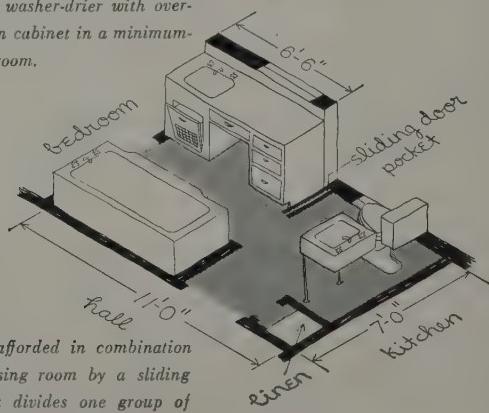
Five fixtures set against one wall in Place & Co.'s bath-and-a-half in South Bend, Ind. Cost to Builder Place was extra \$110.



Bedroom basin offered at an additional \$100 to buyers in the Wade & Wichard Long Island subdivision. Over half ordered it.



Double use of space achieved by installing washer-drier with overhead linen cabinet in a minimum-size bathroom.



Privacy afforded in combination bath-dressing room by a sliding door that divides one group of fixtures from the others.

A single, three-fixture bathroom just isn't big enough for a family if the family is big enough to need a three-bedroom house. Everybody wants to use some part of the bathroom at the same time in the morning when the children are dashing off to school and their father is hurrying to work.

Of course, the one best answer is to put in a complete second bathroom, but this may add anywhere from \$350 to \$900, depending partly on how large the extra bath is, depending still more on how wasteful the local plumbing code is. One thing is reasonably sure: every family that buys a three-bedroom house would like a second bathroom if the cost were reasonable.

Plumbers would have a chance to put in a lot more baths if they helped builders eliminate some code restrictions and other waste which now add so much to bathroom costs.

If you can't afford to go all the way and put in a second bath, there are several halfway steps you can take:

► Without adding any fixtures at all, you can break up your present bath into a two-passenger bath by putting the toilet in a separate 3' x 5' compartment. You can squeeze a two-passenger bath comfortably into a 5' x 10' space. Besides the extra space, all this need cost is an extra partition around the toilet. But for another \$40 or so you can make the two-passenger bath still more useful by putting a small wash basin in the toilet compartment. You can keep your minimum 5' x 7' bath complete and add a 3' x 5' powder room alongside. This is what Andy Place did and he found the extra cost was only \$110 because he already had a storage closet.

► You can break your present one-passenger bath up into a three-passenger bath, i. e. you can put tub, basin and toilet each in a separate compartment. Such a three-passenger bath needs a space 5' x 10' along the bedroom hall. This is shallow enough so that it is one of the ways to put the bathroom plans on an inside wall of a house 26' wide with the kitchen on the opposite side of the wall, where it will have an outside exposure.



What happens in the William Perkins', Joplin, Mo., one-bathroom house during the morning rush hour. Seven children solve the traffic problem at four levels, but photo shows this is not ideal.

► You can put an extra wash basin in the master bedroom, preferably screened off in some kind of closet. Since this basin will be for adults only, you can get extra dividends by setting it in 6" higher:

It will be much pleasanter for adults to wash without having to stoop way over (just as a higher kitchen sink has saved many a backache), and it will leave you more room for storage drawers under the basin. Several builders on Long Island have found home seekers ready to pay \$100 extra for such a concealed basin in the bedroom and that is a lot more than the extra basin ought to cost the builder to install.

One other very practical problem in connection with the bath: what is the best place for an automatic laundry?

In Europe the bathroom of low-cost houses lucky enough to have such a luxury as a bath is often the "water room"—a combination laundry and bath with the toilet in a separate compartment somewhere else. Builders who have tested the idea of putting the automatic laundry in the bath instead of the kitchen or utility room report that about half the women prefer a laundry in the bath because:

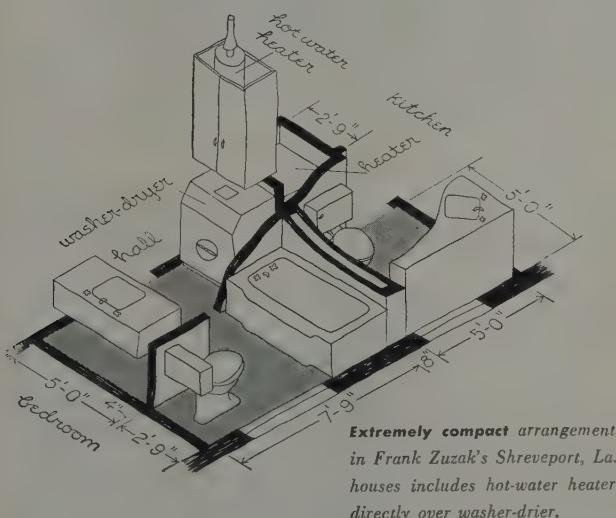
► It is a convenient place for most of the laundry originating in the bathroom or the nearby bedrooms.

► The bathroom is a little-used space from the time the children go to school till they come home.

► The new combination washer-drier occupies 7 sq. ft., so there is room for it in the inside corner of a 7' x 10' bath, and storage can be provided above it for sheets and towels.

► The laundry machine in the bathroom can do double duty as the clothes hamper.

► Some builders who put the automatic laundry in the bathroom are also providing built-in ironing boards so small linens can be ironed right in the bathroom. Other builders report that housewives prefer to do their ironing in the bedroom. A minority wish to do their ironing in the kitchen or utility room.



14 ways to add sales appeal to the bigger bath

Every builder should consider making his bathroom larger. Every buyer would like a larger bath. Architects Matern & York say that nothing sells a \$12,000 house faster than an oversize bath with some deluxe new features. Although a larger bath costs the builder more, the experience of numerous builders is that many families are willing to pay extra for it. When Stern & Price in Cupertino, Calif., offered a "standard model" and a "deluxe model" in three-bedroom houses, every family wanted the house with the extra bathroom even though it cost approximately \$1,000 more.

- 1. Two wash basins set in a long countertop** with drawers and other carefully planned storage space beneath. This is almost a standard feature in luxury houses and is an idea that builders can turn into a mouth-watering sales feature. Even a one-bowl lavatory set in a storage cabinet with a big counter is a sales advantage. Apparently the bigger the counters, the harder women fall for them. A countertop between two basins can serve as a place to dry and dress small babies.
- 2. A really plush oversize medicine cabinet** with sliding mirror front (to prevent bumped heads). The biggest ones cost over \$50.
- 3. A heated towel rack.** Advantages: you can step out of the bath and pick up a heated towel; towels dry faster. This is a luxury that is a feature of better bathrooms in England. Americans come home raving about it. All you need to do is put a loop in the hot-water circuit and run it through a chromium plated pipe that forms a double towel bar. Cheapest way to install it is probably to put the loop in the hot-water line for the wash basin.
- 4. A separate shower stall.** Instead of using the bathtub for showers, the extra stall will allow an extra bathing facility. Alternative: use the tub area as a shower stall by putting in a low-cost bath enclosure. Some can be bought for as little as \$85; others with figured glass are as much as \$150.
- 5. Compartmentalized fixtures.** This is probably the most important single step a builder can take to provide a practical yet attractive bath. Functional division of compartments is one step in the direction of the privacy afforded by the bedroom lavatory or additional half-bath. It can be done by long panes of obscure glass, corrugated plastic or glass fiber (cost with fittings: about \$35), even thin, low dry walls topped by space frames.
- 6. Concentrated as well as general lighting.** Artificial lighting is often inadequate to give general as well as concentrated light for shaving, making up, dressing. Particularly in the bigger bath it is necessary to provide separate concentrated lighting for grooming. New fluorescent tubes (at 10¢ more than the standard units) provide a warm light with some red in it to kill the bluish hues. Proper shielding is necessary to eliminate glare. Lighting authorities say too much illumination is virtually impossible, that people confuse glare with illumination.
- 7. Full-length mirror.** Particularly in a bath with dressing table facilities this is desirable. Location most frequently recommended is on the bathroom door. Cost: approximately \$40.

- 8. Linen closet opening into bathroom.** This is particularly desirable in bathrooms with washers and driers. Since most of the linen is used in the bedroom-bathroom area, why not a pass-through from bath to linen closet and from linen closet to hall or bedroom? Cost might run as high as for an additional door.
- 9. Wall-hung toilet.** Says Dave Slipper, Fritz Burns's technical and production chief, "We believe that no one single change in the bathroom would contribute more to the general lessening of bathroom upkeep than to provide a wall-hung toilet. It greatly facilitates cleaning floors, adds to the general better appearance of the bath." Other advantages: elimination of condensation moisture that forms on tanks of water closets, added space in the bath, no tank-refilling noise. Although original cost of this type is about twice that of the standard floor-standing toilet, it can be installed in much less time. A large-scale acceptance would reduce the cost of the three components: carrier, valve and bowl. Flush valves for wall-hung toilets have an excellent record for long service. Use of the flush valve requires at least a 1" pipe from the street, in areas with low pressure, 1 1/4" pipe.
- 10. Recessed toilet tank** (alternative to wall-hung, flush-valve toilet). Where kitchen and bathroom are back to back and adequate space is allocated to put plumbing between the two sides (at least 1') there is no problem of working the tank between. Dave Slipper says: "It can be done by recessing a linen closet and letting the bottom of the cabinet be a removable shelf (in effect corresponding to the usual removable top of the conventional toilet tank)." The tank can be insulated at low cost. Advantages: less space is used in the bath; the messy sweating of the tank in humid weather is eliminated.
- 11. Bookshelf or magazine rack near the toilet.** A small bath has too little available space for even such a small luxury, but it is a natural for the bigger bath. Several prize winners in the recent Crane Co. national architectural competition included this thoughtful addition. The cost should be trifling, the reaction of the magazine-reading public immense.
- 12. Built-in clothes hamper.** This is a practical addition in a bath where both dressing-table facilities and laundering facilities are included. If space under the wash basin is used for leg space and vanity drawers, a clothes hamper is not practical there. It is best recessed in a wall close to the washer and/or drier. Cost: about \$30.
- 13. Built-in bathroom scale.** Units now manufactured include one that can fold into the wall when not in use. Cost: about \$40.
- 14. Provisions for children's use of the bath.** Builders who believe that every medicine cabinet should have a small compartment to lock away poisons from inquisitive children have incorporated this feature in cabinets they build themselves. So the little people can reach the faucets by themselves, some builders provide a pull-out drawer under the lavatory. Still others use a lower bathtub that children can climb in and out of safely or a wide-rimmed tub where a mother can sit while bathing children. For other advances in the modern bathroom, see p. 144.



Simple construction uses full rounds as both space divider and interesting provision for towels. Cabinet under basin uses all available storage room.

Modular cabinets are sized to fit lavatories and counters of fixture manufacturer. Assortment of types permits flexibility in ensemble arrangements as well as over-all dimensions.



Philip Fein



Compartmentalized fixtures, left, allow simultaneous use of toilet and tub, separated by obscure glass. Note low-tiled bench near bath for dressing, overhead illumination, and large auxiliary wall heater.



Photo of House Beautiful's 1953 Pace Setter by Maynard Parker

Handsome bath gets much of its luxury from ceramic tile on floor, counters and on walls right to the ceiling. Tile costs only \$1 to \$1.50 per sq. ft., is a big sales feature. This wide counter is working area for baby's bath and its luxury would delight any woman. Three medicine cabinets, left wall, are so hinged they provide a three-way mirror.



Colored countertop and twin basins proved fine selling point for one builder. Arrangement would have had even greater utility if storage space had extended to floor with recess for toe room.

Why not an open-plan bath?

The idea of open planning and multiuse of space has been carried to almost every corner of the house except the bathroom. Yet architects recognize that many people would enjoy an expansive bathroom—to let their hair down psychologically as well as physically. One way (see H&H, Jan. '52, p. 113, and photo opposite) to gain a large, luxurious room for bathing is to add the bathroom to the bedroom as open space (just as the old dining room has been added to the living room by the open plan). Builders may say, "You could never get away with that in a builder's house."

Nevertheless, HHFA Architect Bernard Wagner has come up with an open-plan bath that could give dwellers in small houses some of the luxury that comes with space. In effect he takes the bathtub out of the 35 sq. ft. bathroom and puts it in the 200 sq. ft. bedroom.

This bathtub-shower combination, directly accessible from two bedrooms, is a step in the direction of many people's "dream bath." George Nelson, author of a chapter on today's houses in Talbot Hamlin's monumental study of contemporary architecture, *Forms and Functions of 20th Century Architecture*, cites the results of a survey on what people really wanted in their bathrooms: "... a radio, a telephone, and even a picture window, for example, suggested that the pleasant relaxed feeling that comes with taking a bath creates a desire for social and aesthetic communication."

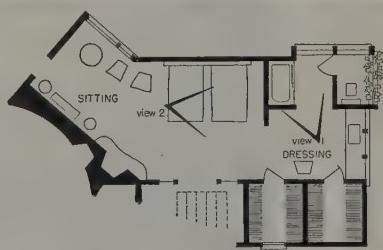
Yet, "the modern bathroom is the one room in the house which has been squeezed down to an absolutely irreducible minimum, and the reason is that bathrooms are usually designed for the fixtures instead of for the people who use them."

"... The listing of a chaise longue and an oversize tub suggested that, given the space, people might use the bathroom for sexual activity. Other replies showed that care of the body through exercise was logically connected in some people's minds with getting the body clean.

"What was most interesting about this investigation was that it turned up a picture not of a new kind of bathroom but of the oldest type known to mankind. The Roman baths, for instance, combined social activity, games, exercise and even cultural pur-



View 1



Open-plan bath, designed for his own house by California Architect Burton Scutt, borrows space from dressing area. Low-cost variation in HHFA design appears on opposite page.

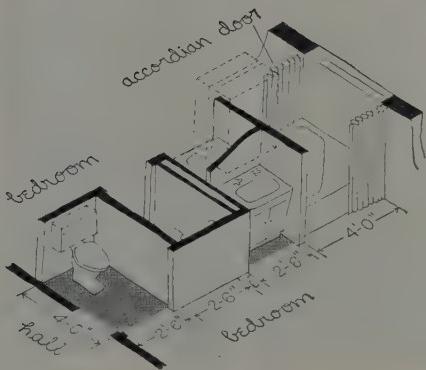
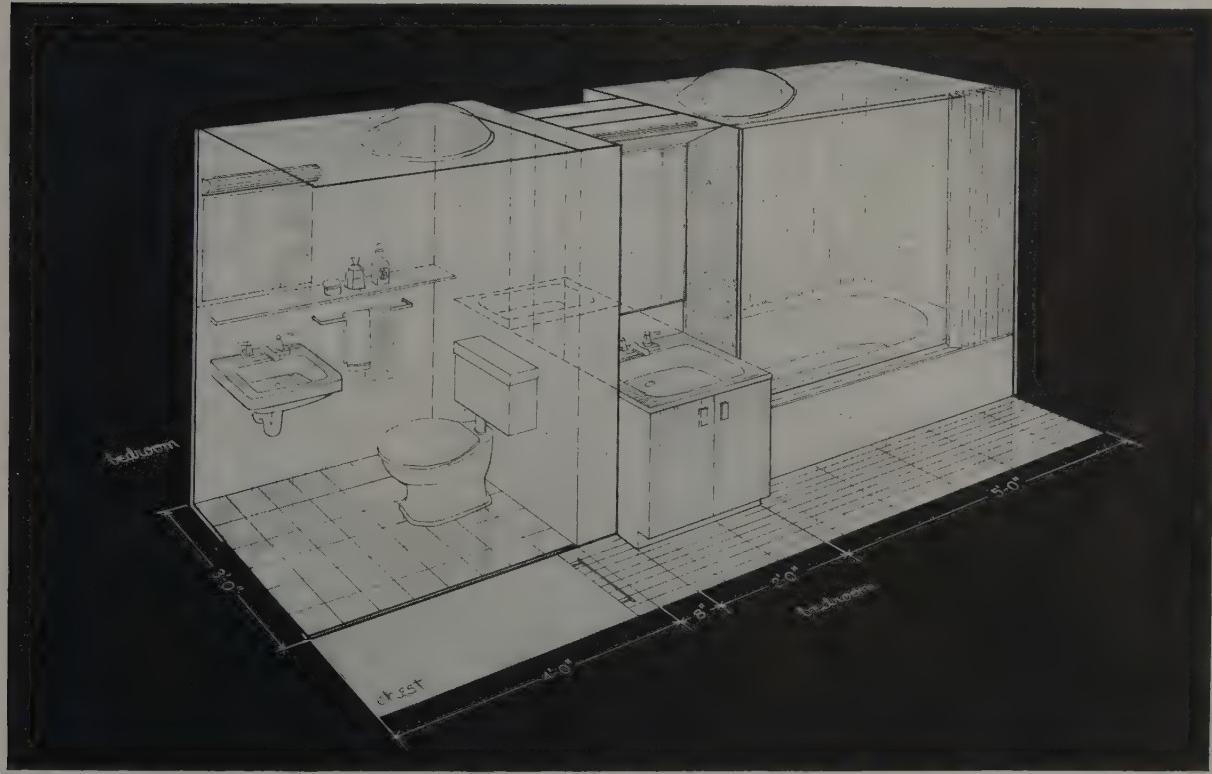
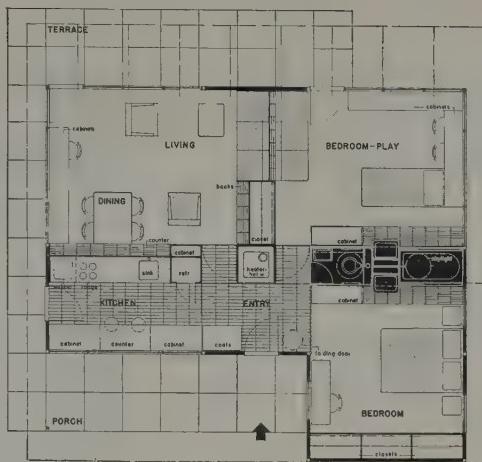


View 2

suits with bathing. The Russian and Finnish steam baths are primarily for social activity. . . . The Japanese bath, as built in the private Japanese house, is a room in which the shower is used for getting clean whereas the tub is used only for relaxing the body. . . .

"One conclusion that might be drawn is that the bathroom in the US is not quite the miracle of modern ingenuity it is supposed to be and that it might better be described as an example of how an industrial culture acting in concert with prudery can create a room that fails to meet requirements expressed by the human race in every part of the world throughout history. . . ."

The HHFA-designed bathroom makes some of these points and still another one for the practical-minded builder: where he cannot provide a bath for each bedroom (because of space or cost), a wash basin in each of two bedrooms and a separate one in the toilet can do much to take the pressure off the bathroom during periods of peak use.



Unconventional arrangement above, by Architect Bernard Wagner for HHFA, puts almost the equivalent of two complete bathrooms (five fixtures) in 45 sq. ft. The toilet compartment off the hallway is accessible to all members of the family and guests. Each bedroom has its own lavatory; cabinets over and under each basin provide convenient storage space. Sliding doors between bathtub-shower and bedrooms assure the necessary privacy. Arrangement allows for location of window at end of the bath area. The toilet need not have daylight but must, of course, have an exhaust fan. Waterproof flooring is laid near bathtub and wash basins in each bedroom. How bathroom idea fits a house is shown in plan. Variation of design, left, with two separate toilets, is achieved by elimination of lavatory in each toilet compartment, addition of dividing wall. Note access to end toilet from hall as well as from bedroom.

GOP hits snags finding new HHFA chief so lame ducks are retained

IN THIS MONTH'S NEWS:

(see pp. 37 through 52)

A look at the makeup of the new Congress hints it may not reduce public housing as much as some people think

Truman's budget would boost with FHA and public housing, give a shot in the arm to HHFA research and military construction

Builders worry over vacancies in defense housing, and Armed Forces Housing Chief Coogan advises them to build slower

House & Home's Trade Secrets house draws crowds that recall the housing rush of '46 and dozens of builders prepare to erect it in their localities

The industry fight against slums gets a boost as Chicago opens its second housing court

As February began, the biggest unfilled job in the Eisenhower administration was that of HHFAAdministrator. There seemed to be two principal reasons for the delay—itself something of an anomaly for the new team which elsewhere had taken over the reins of government with remarkable speed and decision. One reason was that Eisenhower was having trouble finding a man for the job upon whom his closet advisers and leading segments of the building industry could agree. The other: a basic decision was still pending whether or not to keep HHFA as it is, increase its authority to a cabinet-level "department of housing" as Builder Tom Coogan was urging, or break it up as suggested by HOUSE & HOME's industry-wide Round Table and many other elements. Few men of stature in the building industry were inclined to accept the \$17,500 HHFA job only to be told to liquidate the agency.

Prospects galore. In the weeks preceding Eisenhower's inauguration, nearly a dozen names bobbed into the stream of Washington talk as prospects to succeed HHFAAdministrator Raymond Foley. Two of the ablest, Mortgage Bankers James Rouse Jr. of Baltimore and Byron T. Shutz of Kansas City, were understood to have declined. Alan Brockbank, retiring president of NAHB, indicated in a speech at Chicago that his stern opposition to public housing may have put him out of the running. There was also the fact that other associations might resent having a homebuilder in the top housing post. Ralph H. Cake, former GOP national committeeman from Oregon and one time (1940) president of the US Savings & Loan League, had made it clear before the election that he meant to return to Portland whether Ike won or lost.

The candidacies of Charles P. Taft, brother of the senator and unsuccessful candidate last fall for governor of Ohio; of Herman T. Stichman, New York state housing commissioner; and of Stewart Rothman, executive director of the Minnesota division of housing, never seemed to get off the ground.

Two from Kansas. At month's end, dopesters figured only two more were left in the running: Henry J. Bubb of Topeka and Albert L. Cole of Holton, Kans. Bubb, former (1950) president of the US Savings & Loan League, is president of the Capital Federal Savings & Loan Association. A

long-time Republican stalwart, he was chairman of the National Young Republican Federation in 1938. Lawyer Cole, who was defeated for re-election to the House of Representatives last fall, staked his candidacy for the job on his membership in the House banking committee since 1947, plus the fact that he sprang from none of housing's rival trade groups. Cole, an outspoken anti-public houser, bore the public endorsement of NAHB—the only one given by major associations. But that might be more of a handicap than a help.

While Attorney General Herbert Brownell figured heavily in picking top men for other posts on the Eisenhower team, Mortgage Banker Aksel Nielsen of Denver was one man on whom the new President counted for advice in housing. Nielsen, a former (1949) president of the Mortgage Bankers' Association, had long been a personal friend of the general. Like Ralph Cake, he had no thought of accepting an administrative job.

The deep think. While the long internal debate continued, Ray Foley and his team of generally aging incumbents remained on the job. Formulation of a detailed Republican housing policy (a subject Eisenhower



**Gabriel Hauge:
Ike's liaison
for housing**

avoided spelling out during his campaign) thus marked time.

How long this minor stalemate would continue was one of Washington's leading questions. As the Eisenhower staff got to work, building men woke up to the fact that Dr. Gabriel S. Hauge (pronounced *how-ghee*), Eisenhower's administrative assistant charged with liaison between the White House and government departments on economic problems, had become a key man in the housing picture. Hauge, 38, a New York economist and since 1950 an editor of *Business Week*, wrote most of Ike's whistle-stop speeches during the campaign.

It was not true, as many in the industry heard, that the President had delegated him the job of surveying US housing agencies for a possible shakeup. In his day-to-day job as economic adviser to the President, Hauge would be cast more in the role of go-between for such studies. Besides HOUSE & HOME's Round Table report summing up the best thinking in private industry, which Hauge had under study, the new administration could expect housing recommendations from the Temple University survey of government organization. And other economists might well be called in for expert advice. But many another problem clamored for attention more urgently than housing. So trusted Ikemen said White House thinking had gone only about this far:

The first thing to study was "that colossus," HHFA. FHA was here to stay, although some revamping of its standards might be in order. On public housing, and slum clearance, the government could hardly withdraw from the field entirely, looked hopefully at private industry's still embryo attempts to come up with a workable alternative to the present expensive program.

Nearer to 4½ %? On many a policy of prime importance to housing, the lack of a GOP chief for HHFA had shifted leadership to Congress. There it fell into the hands of the chairmen of the banking and currency committees which pass on all housing legislation, Sen. Homer Capehart

(R, Ind.) and Rep. Jesse Wolcott (R, Mich.).

Capehart, who was already on record as favoring an interest rate rise, promptly bumbled into the long struggle over the frozen interest rates of VA (4%) and FHA (generally 4½%) home loans. On Jan. 28, he summoned ten lame-duck administrators from HHFA, FHA and VA to a closed hearing, asked them whether interest rates should be raised (see cut). HHFAdministrator Foley and eight aides told the committee what they had been saying for nearly two years: a rate increase is not necessary now. Capehart reported he did draw admissions from Gray and Foley that "certain factors" might make a rise necessary shortly. Explained the senator: "I take it to mean that if government interest costs continue to rise and all other interest rates follow suit, then the higher government mortgage rates would be necessary."

Portents in bonds. There were plenty of signs that such a tight money trend was in the making as the administration moved to prevent the confidence boom from generating more inflation. Most economists considered the Federal Reserve's Jan. 15 action in raising its discount rate from 1¾% to 2% as the first harbinger. Another was the Treasury's offer of six-year bonds at 2½% or one year certificates at 2¼% in exchange for \$8.8 billion of 1⅛% Treasury certificates expiring in mid-February. One highly

placed Eisenhower aide explained the refinancing this way: the added cost to the government of increasing debt-service charges is *arithmetical*; the rise in prices from inflation fueled by excessively low interest rates is *geometric*.

The next few months would see strong efforts by the Eisenhower administration to prevent business expansion from carrying after it a wave of price increases. Strict credit discipline was the chosen instrument. That meant higher interest rates.

In the House, Rep. Jesse Wolcott was getting ready to investigate the interest rate question, too, although he was also on record as favoring an increase. With Treasury concurrence, FHA already had power to raise its rate as high as 5%, VA to boost its rate to 4½%. About all that seemed needed was a nudge.

Philadelphia department store sells apartments

Gimbels in Philadelphia opened the first department of its kind in US department store annals, began selling apartments in a proposed \$3.2 million, 300-unit FHA-insured cooperative. Even before the store put on display full-size furnished models of four apartment interiors (carrying charges \$37 to \$117 a month) it had deposits on 60 units. On Jan. 12, the first day of regular selling, it signed up 65 more applicants, 125 in the next four days.

INTEREST RATE HEARING by Senate banking committee hears HHFAdministrator Ray Foley (R, at witness table) testify flanked by VAdministrator Carl Gray (c) and VA's Bert King (l). W. Randolph Burgess (third from r, at rear) special consultant to the Treasury on fiscal policy, sat in on session but made no comment whether he favored the rate increase private lenders, builders demand.

Reni



Is public taste getting ahead of most builders?

Builder Burt Duenke learns by happy experience

that people want better houses.

**Even in conservative St. Louis, buyers scramble for
the fresh design**

He and his architect developed

"When money tightened up and houses weren't moving fast, we realized we had to do a better job," says Builder Burt Duenke. "Selling houses in a buyers' market is getting to be as much a matter of good design as of low cost."

When he decided to build a post-and-beam, partly prefabricated house in his Ridgewood subdivision, many builders told him his design was far too advanced for burgher St. Louis with its big concentration of conservative German stock.

Actually the houses sold faster than any of the more conservative models he offered in the past. Buyers were quick to see a lot of good living in his open floor plan, and his construction was so carefully and economically designed that he was able to offer 1,186 sq. ft. plus carport and outdoor storage for \$14,200, a rock-bottom price for St. Louis.

What's more, FHA gave him top valuations and cooperated during the planning stage. Banks which had seen him improve his design each year did not hesitate to back him.

Take a look at his selling record:

- Sales in ten months totaled 209 houses.
- Almost all the 147 houses in the first two sections were sold from two completed models.
- Eight buyers of the first 90 were young architects.
- Most of the first two dozen houses were sold *at night and by appointment*.
- Regulation X (when it was on) did not hinder sales. "That proved to us that design makes the difference. People are looking for new and better houses, just as they expect advances in automobiles."

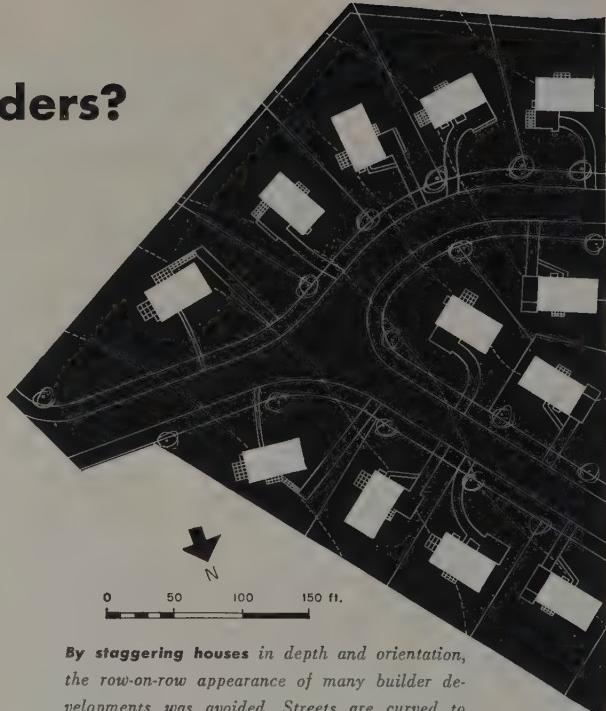
Duenke did not leave merchandising his houses to chance, as the photos on these pages show. His main problem: to let prospects see that a modern house is a livable, likable place to eat, sleep, play and be gay in. Many builders duck this problem, figure it is easier to go on offering the same old houses people are accustomed to—but not Duenke. Here are some of the merchandising tricks he used to make people dissatisfied with stand-pat designs:

Rooms were furnished down to the last detail so visitors could get the feel of living in a modern house.

A cutaway display of wall panels, partitions and post-and-beam structural elements was exhibited to show how the house was built.

Design makes the difference

One of the biggest tributes to the Ridgewood house was that many of Duenke's customers had planned to build their own houses, but decided to buy from Duenke because he offered so much they liked. That should be a tip-off to other builders, since almost everyone



By staggering houses in depth and orientation, the row-on-row appearance of many builder developments was avoided. Streets are curved to take advantage of the hilly site. Cul-de-sacs in other sections add to variety, prevent monotony.



Hutchinson Photographers





Hundreds of visitors, below, flocked to see what Duenke was up to. Even rainy weather could not stop them. Sodded lawns gave finished effect, kept site from getting muddy. Gentle slopes and carports were used to give each house privacy.

Night lighted for display, completely furnished model house drew steady flow of visitors even on week days. Nighttime inspection hours gave opportunity to show effectiveness of modern light fixtures and the remote control lighting system.



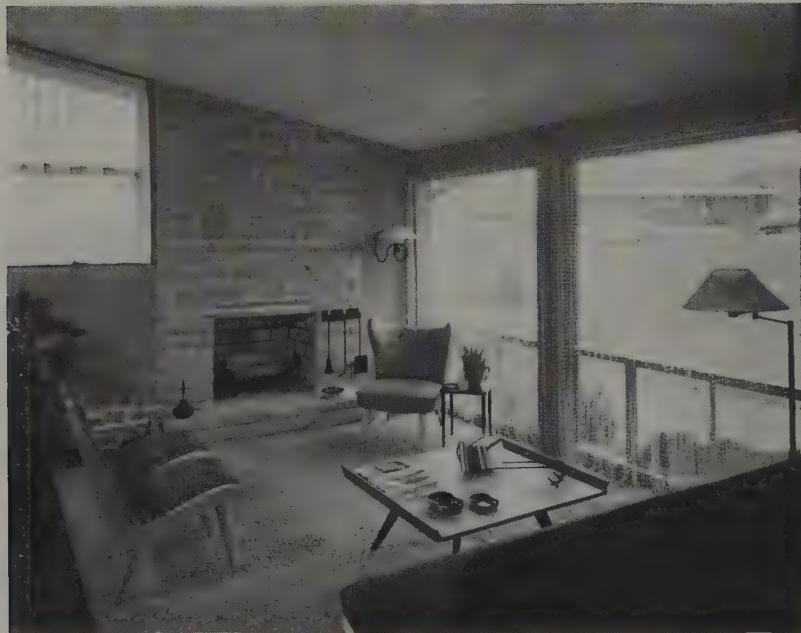


Sheltered outdoor area was created by putting scored concrete patio behind carport. Floor-to-ceiling window is in bedroom. Siding, trim, roof gravel colors were controlled by builder, added individual touch, and precluded color clashes.



Panels study, right, could be used for a sewing room, third or guest bedroom, children's playroom. Note roomy storage wall on right; half of closet opens into living room near doorway. Sloped ceilings make room seem bigger.

Photos: Hedrich-Blessing & Hutchinson Photographers

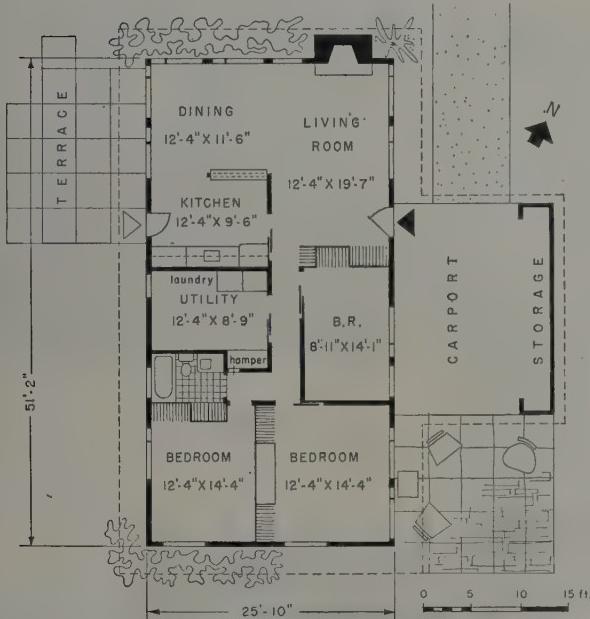


Conventional furniture in one display house helped convince buyers they need not have modern furniture for a modern house, sold many young couples who could afford a new house but not new furnishings. Fireplace was big sales bait.

Modern decoration by Minna Elman of St. Louis, in living room, left, contrasts early American scheme in the same room (above). Note raised hearth for fireplace. Outdoor space is added to indoors by use of large glass areas.



Neat merchandising trick was to offer a choice of two kitchens. Deluxe model (top) has wall oven, dishwasher, garbage disposal unit. Storage space, always at a premium in the kitchen, is provided by handy cabinets shown in both photos.



Merits of carport storage area were made graphic by stocking it with bulky items, garden tools every suburban home owner uses. Like house, carport is redwood, balances the design. Children can play outdoors here on rainy days.

would like to build his own home but few people can afford to. Four features buyers looked at and liked:

1. Handsome stone fireplace. Duenke considers this a lifetime luxury that most people cannot afford to add after a house is built. It is scaled nicely to the living room, breaks up the monotony of the vertical redwood siding, adds distinction to the house.

2. Open planning. Vaulted ceilings in the L-shaped living-dining areas make it look larger although the living room itself is relatively small. The eye is carried to the outdoors through large areas of glass or window walls. In some houses Duenke built pass-throughs between kitchen and dining area, in others maintained the open feeling by ending the dividing partition below full ceiling height. Did women worry about cooking odors in this open plan? One woman gave the answer bluntly: "Cabbage is cabbage. No door can keep out its odor." Duenke adds, "Women like the kitchen door open when they are cooking, anyway."

3. Storage walls. Most of the partitions are closed walls with sliding doors. Master bedroom has a built-in vanity with big mirror and recessed light between two closets; an optional item at \$100, it caught women's eyes. Over half ordered it.

4. Car space. Most buyers preferred the attached carport although they were offered an attached garage or no car space at all. Others, fearing the cold St. Louis winter, took a closed-in garage for an extra \$500. It has ample storage and work space in the back.

Success no fluke

Duenke reversed the old saw about being from Missouri and having to be shown. He did the showing and clearly demonstrated the advantages of:

Designer-builder cooperation. When Duenke was a 70-house-a-year builder in 1949 he hired young (30) Ralph Fournier, a student of architecture at George Washington University, on a part-time basis; then employed him full time after graduation. Both Fournier as architect and Duenke as designer have learned from one another. They form a good team. Example: when Duenke suggested leaving wide overhangs off the backs of the houses, Fournier convinced him the shadows cast by the overhangs would soften the lines of the house. Similarly, he talked Duenke out of using a variety of exterior materials, or a "Banana Split" (H&H, Apr. '52).

A well-planned site. Curved streets take advantage of the gentle slopes. Each house was oriented so families could enjoy outdoor living in privacy. The large windows are generally located to the south and east. Duenke plans 75' x 150' lots in his third section to set his houses off to even better advantage. Split-level houses will be built on the higher knolls and will overlook a central shopping center he will build this spring. This will cash in on the trade his homes have brought to the neighborhood. A creek will separate the center from the rest of the development.

Advance planning. Duenke and Fournier spent months working over their plans, detailed them minutely to save materials and labor in the field. "We spent a lot of time and money," Duenke says, "but it was well worth it. We even surveyed the site from the air [he is an aviation enthusiast]. Site planning is like diamond cutting: once you have made your big cuts, you cannot afford to change them. A shopping center on a big, hilly site helps a lot because it allows give-and-take of the great gobs of earth that must be moved."

Low cost. In an area where highly competitive frame houses cost as much as \$12 per sq. ft. (brick, \$1.50 more), houses with deluxe kitchen cabinets and fireplaces sell for as much as \$13 per sq. ft. By planning on the drawing board instead of on the job, Duenke was



After footings are poured, a factory-built center section is erected on a center grade beam. Skeleton is then plumbed and braced. Beams are marked at the factory to indicate where rafters are to be placed. End rafters are butted, others overlap. Factory-made spacers between rafters have holes predrilled in them to ventilate space between roof and ceiling. Screen is stapled over the holes. Tar-and-gravel roof is built up, followed by panels. Construction of panels is shown by diagram (above, right).

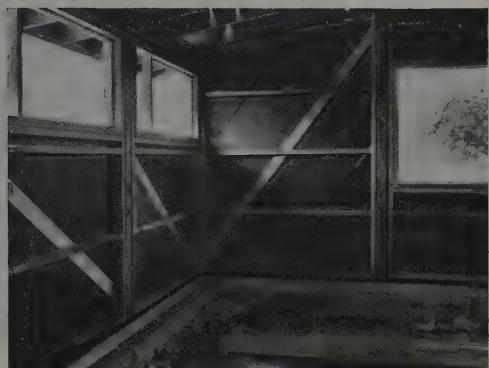
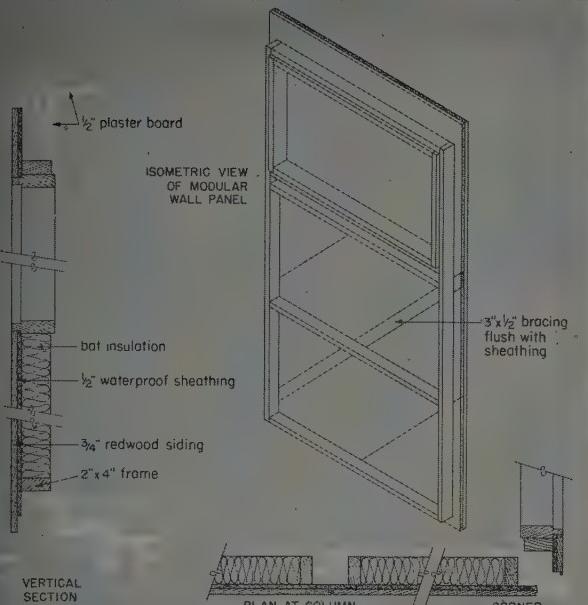
Photos: (below) Hutchinson Photographers



Time and labor on the job are cut by building panels in jigs. Each jig is on an 8' sq. table at convenient work height. Panels are built up in layers: studs, sheathing, V-joint redwood siding applied without turning panels over.

Redwood panels, right, are fitted to post-and-beam skeleton by two men using simple lever tools. A tolerance of $1\frac{1}{2}$ " is allowed in panel frames so they can be adjusted and plumbed between posts. Extra-long lap or groove at ends hides panel joints.





Sheathing is applied at a 45° angle, flush against wind bracing. No notching of studding is necessary to "let in" bracing which is nailed flat against studs. Duenke insists his unorthodox method allows use of many small pieces that would be useless applied vertically or horizontally.



Nonload-bearing partitions are precut and assembled before delivery to the job. Since they can be stored under roof until ready for use, there is no time lost waiting for arrival of materials, no cutting of small pieces. Insulation is applied with staple gun before dry walling.

able to bring his costs down to less than \$10 per sq. ft. (without land). One builder who tried to imitate him gave up when he couldn't get near Duenke's costs, which are competitive with the most cheaply built houses in the area.

Duenke uses post-and-beam plus prefab panels

Duenke's building methods are probably unique in his area. He carries post-and-beam construction one logical step further than is customary by using prefabricated panels between posts 6'-4" o.c. He pours his slab floor after his side walls are up and his roof is on.

His unconventional techniques came only after he had tried other methods. He has grown (from six houses in '46 to over 200 in '52) because he tries any new techniques in the field. He tried roof trusses, gave them up because he believed they took too much material, were too cumbersome to handle. He built 24' side walls in one piece, gave them up because he had to stop his union carpenters on their job and get them to haul the long panels off the truck and into place. He rejected 4' prefab panels because they required too much labor on the job to put together. The 6'-4" panel he finally selected as the most economical was based on the allowable roof span required by FHA. Thus 6'-4" became his module.

Panels shipped with glazed windows

The vertical redwood panels are made in a plant he bought 2 yrs. ago. The mill is several miles from his present site but will be closer to his next development. Duenke says, "We can put sheathing and exterior siding on in the same time it takes to apply sheathing alone in the field." Aluminum windows are caulked and glazed in the panels; but big window walls are site glazed. A portion of every glass area has screened, sliding sash for ventilation. Door frames are weatherstripped and hardware installed in door frames; doors are fitted to the panels.

Exterior can be varied

The prefab panel allows tremendous flexibility of exterior: the homebuyer can have solid panels, window walls or high strip windows almost anywhere he wants them. This flexibility allows the home owner to take advantage of sun, view and breeze. Over a dozen shifts can be made in the basic three-bedroom-and-carport pattern on which Duenke concentrated in his Ridgewood development (233 of 258 houses): the carport can be put in any one of four places; the fireplace can also be placed in several locations.

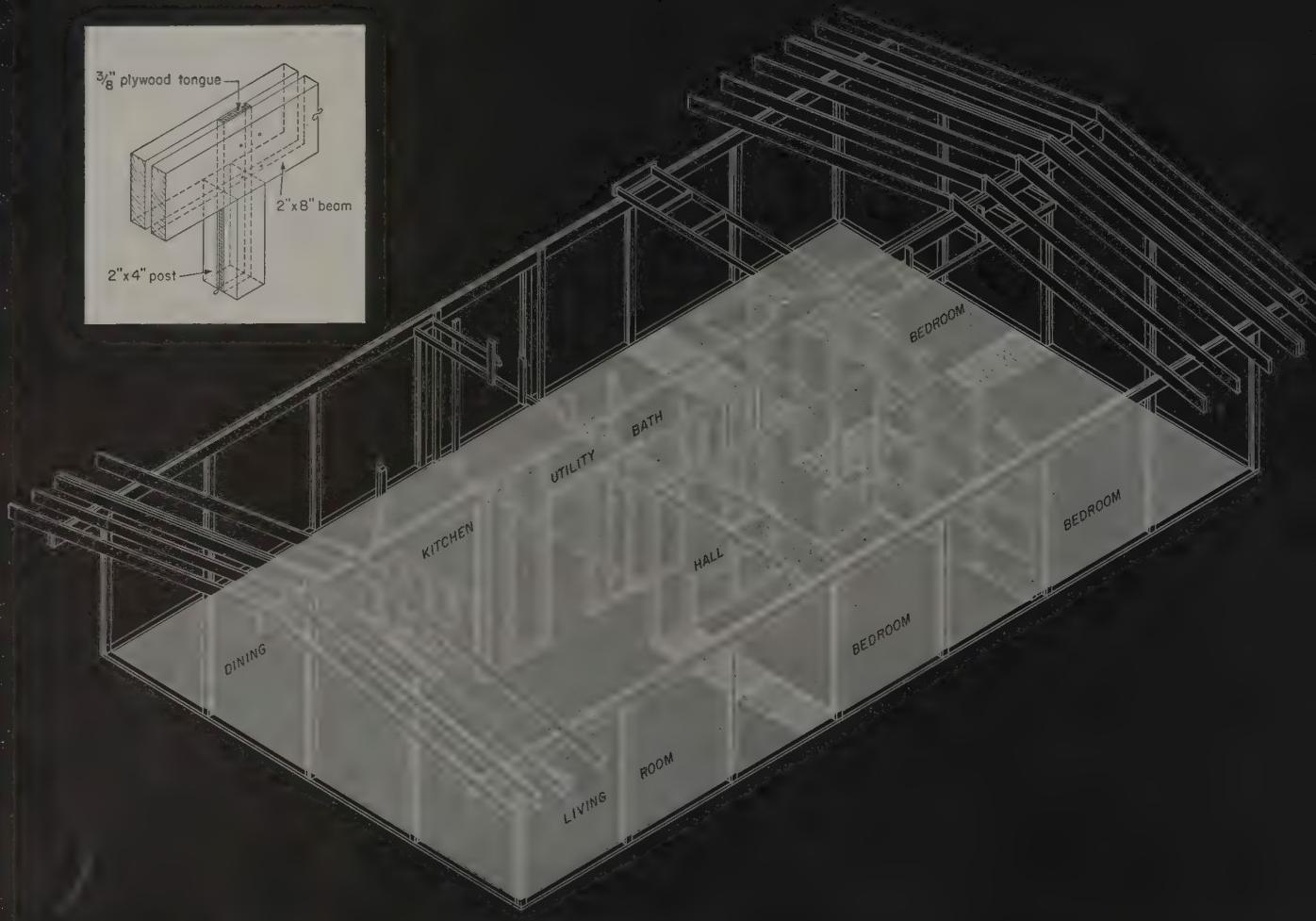
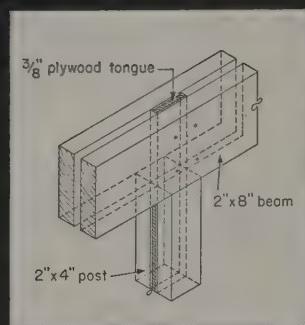
Slab poured after roof is on

Duenke carries the idea of flexibility over into his building techniques:

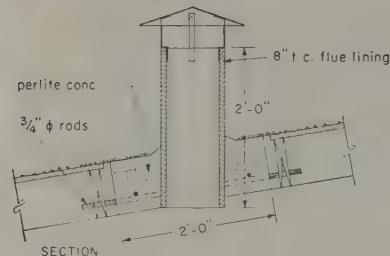
► Although he sometimes pours his floor slab before beginning house framing, he prefers to pour it after the house is under roof by chuting ready-mix through the windows or doors. He says the roof keeps the slab from getting wet in rainstorms, keeps it from drying out too fast under broiling-hot sun, provides cover for rough plumbing. The floor is poured three-fourths of the way up the sole plate to add rigidity to the structure and to keep out drafts.

► Since the chimney is totally outside the house it can be built at any time up to interior painting. This allows superintendents to keep men working even if bad weather prevents stonemasons from completing the chimneys.

► Wiring can be installed before or after insulation. The 1 1/2" tolerance allowed between posts and panel pays a nice dividend by forming a built-in channel for wiring which can be installed with a minimum of drilling.

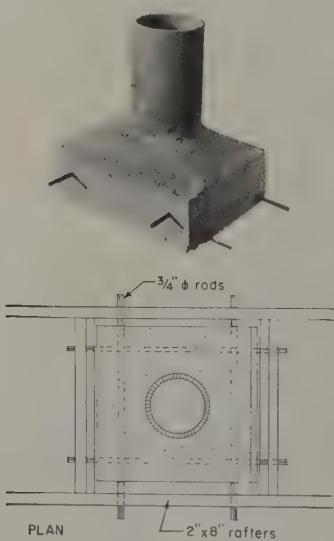


Post-and-beam framework of double 2" x 8" beams is supported by double 2" x 4" posts. Inset shows how plywood tongue and posts slip between plywood-spaced beams for easy nailing. Factory-built center partition, only one which is load-bearing, is in three sections. Beams are marked for quicker placing.

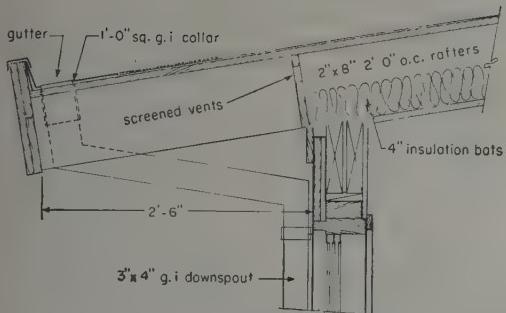


Chimney detail (left) shows how it is mounted in roof by running the $\frac{1}{2}$ " rods through rafters and transverse members. Workman mounts ladder with collar of lightweight aggregate over his head, pokes bars through rafters before they are nailed down.

Chimney is prefabricated by Duenke for less than \$10; cost is low because it is so short. Since the furnace is hung directly beneath ceiling of utility room, only a short flue is necessary to reach the terra-cotta flue liner.



Plumbing is centralized in the utility room between the kitchen and bathroom. All utilities are within the diameter of a 9' circle. For easy access all plumbing is exposed in the otherwise finished utility room. Extra space is provided under the ceiling furnace for the clothes washer and dryer.



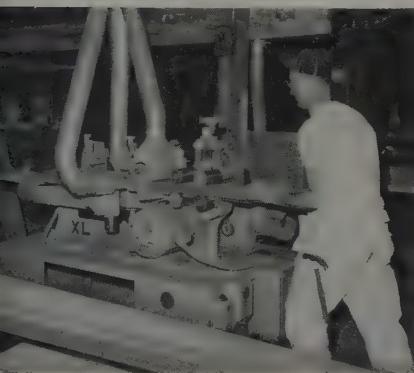
Built-in gutter on roof allows an uncluttered sweep of wide fascia board across the top of the house. For Duenke it solves the problem of unsightly paint peeling that he experienced with exposed gutters on his earlier houses.

Photos: Hutchinson Photographers



Door jambs are all completely weatherstripped and latched as well. Volume buying, mass production allow Duenke to meet competition, sell his houses for under \$10 per sq. ft.

Window jamb, below, is cut four ways at once on automatic machine in Duenke's prefab plant. Jamb becomes structural member in the redwood panels. Use of power tools cuts labor costs. Since much of the labor is done in the plant, many small pieces can be used that might be lost on the job.



No cutting, no fitting

By using a low-pitched, tar-and-gravel built-up roof on a framework of doubled 2" x 4" posts and doubled 2" x 8" beams (all pre-cut) together with his modular panels, almost no cutting or fitting is required on the job.

Precut rafters are spaced at the eaves with factory-made spacers in which holes have been drilled to vent the attic space. Holes have screen stapled over them.

Redwood sheathing gives overhanging eaves a trim, finished appearance. Center section of the roof is sheathed with fir, cedar or yellow pine. Overhanging beams are boxed in redwood.

A built-in gutter on the edge of roof overhangs eliminates the possibility of unsightly paint peeling.

One man's trade secrets

Unconventional as he is progressive, Duenke buys 7' studding at \$40 cheaper per M than standard length, makes volume use of it for posts because his 8"-high beams give him the remainder of the height to the low side of the vaulted ceilings. He uses many short 2" x 4"s for his horizontal framing.

He buys dry wall in special 12'-6" lengths for ceilings. It reaches from wall to ridge beam in one sweep, eliminates cutting, saves labor, minimizes extra joints. Drywall taping and plastering is down to a science. His subcontractor feathers a stretch almost a foot wide at the joint as insurance against cracks. Duenke says he will guarantee drywall against cracking, but would not guarantee wet plastering.

Another big saving is made by using storage walls as the bulk of the partitions. By eliminating drywall where storage walls butt against drywall partitions, Duenke figures he saves enough drywall for ten houses in every 200 he builds.

Building for convenience

Sliding doors are used almost everywhere throughout the house. Housewives find them convenient, as chairs can be placed in front of doors. No space is wasted.

A clothes hamper in the utility room is factory-built. It opens into the hallway near the bathroom door (and at a central point from the bedrooms); soiled linen is removed from the hamper through a larger door in the utility room directly across from the washing machine.

A corner cabinet at the intersection of the hallway and living area doubles as a bookshelf and telephone stand (one shelf is sized for the telephone book). In houses without carports the gas meter can be housed in the cabinet, thus removing an unsightly appendage from the outside of the house.

Duenke's whole company is sold on contemporary architecture. In the works now are more open planning, a plank ceiling house, greater glass areas, air conditioning. Designer Fournier and Builder Duenke credit this magazine for much of their modern outlook. He is one Midwestern builder who says, "the building industry is on the move, we've got to keep up; you people have to stay ahead." His advice to others contemplating more modern designs: "Don't try to remodel an old plan. You'll lose too much time. Starting from scratch with no preconceived ideas about how much a new house should resemble an old plan is the secret."

Joining the prefab ranks

Now, like Don Scholz of Toledo (H&H, Jan. '53) and Andy Place of South Bend, Duenke has turned toward prefabrication sales as one way of increasing volume without leaving his local building area. His newly formed Modular Homes Inc. is shipping to Davenport, Iowa; Granite City, Ill. and elsewhere, will soon be shipping the 500-mi. limit prefabricators consider economic.

NAHB's new president: Emanuel Spiegel

LIVE: Archie Lieberman



Spiegel's greatest asset: he can get along with people. He is seen here after his election as president of NAHB in Chicago, with directors (including John Weinhart with head ducked in center), all decidedly cheerful.



Emanuel M. Spiegel was swept into the NAHB presidency in Chicago last month with more general agreement and good will than has marked any previous election. While there may have been differences of opinion on many minor issues at Chicago, there was complete agreement on the new leader: he was clearly the man for the job.

"How can you throw rocks at a man like that?" asked a West Coast builder. "He's 100% behind our organization. He's out to do everything he can for the homebuilding industry. I'm all for Manny."

Everyone seemed to recognize that this was the year for a president with Spiegel's legal training and personality. Said past president Bill Atkinson: "Manny brings more NAHB experience to the job than any other president we've had. He knows the organization better than any of us did when we took office."

This year, the members recognized, the NAHB president must meet new situations in Washington. Frank Cortright will no longer be in the central office. Even more important is the change in the political situation. NAHB's new president must adjust its activities and programs to the completely new Eisenhower administration with new people in the housing bureaus, new Congressional committees, and undoubtedly a considerable amount of brand new legislation.

Manny seems to fit the bill exactly. He lives only an hour's flight from Washington and is in a position to spend a lot of time there. He is a lawyer with a thorough knowledge of governmental machinery. He has already demonstrated exceptional skill in appearances before tough-minded Congressional committees. And his being an active Republican won't hurt.

In the months ahead Spiegel's legal background will be a strong asset. "He is one of the few top builders who has learned

about codes, legal processes and all the governmental procedures that affect building," said a man who knows how long it takes a newcomer to learn his way around Washington.

Headquarters: Washington

To meet the new conditions Spiegel has a new concept of his job as president. "I'll have to spend at least several months right in Washington," he said just after his election. "My first job will be getting acquainted with the new administration and with the new regulations that will be coming up. There will be hearings in February on many matters that are important to builders. I also want to work closely with our Washington staff."

"Alan Brockbank was able to spend a tremendous amount of time on the road," Spiegel continued, "and he did a wonderful job selling NAHB. Because of the changed situation in Washington I can't travel as much as he did. We have five national officers—and we are going to have a five-man team, with each sharing the load. The president can't do it alone."

Manny will get a lot of help from his first vice president, Dick Hughes. Last year Hughes averaged nearly two major speeches a week and appeared to thrive on travel, a diet of speeches, banquets and black cigars while running building operations in four or five Texas cities. He can do this only because he has his own airplane, a 24-hr. pilot and an apparently iron constitution.

Spiegel will also expect travel and speechmaking from his second vice president, Nicholas Molnar of Olmstead, Ohio, from Treasurer Paul Burkhardt of Glendale, Calif., and from Secretary V. O. "Bud" Stringfellow of Seattle.

Ten years experience

Spiegel has been active in homebuilders' organization work ever since 1942, when he took the tough job of chairman of the War Housing Committee of the Master Builders Assn. of Bergen County, N. J. At the end of the war he organized the Home Builders Assn. of Northern N. J. and was its president for two years. In 1949 he organized the State Assn. and was its president during 1949 and 1950.

He has been a member of the NAHB Executive Committee since 1947. In 1948 he was chairman of the NAHB Labor Committee, in 1949 and 1950 he was convention chairman, in 1951 he was chairman of the Emergency Committee and second vice president, in 1952 chairman of the legislative committee and also first vice president. His record with the organization is impressive, and the time he has devoted to NAHB affairs is proof that he is a firm believer in its welfare.

Spiegel the conciliator

Manny's great popularity with the membership is evidence of one of his greatest assets: he can get along with people.

"He has a wonderful quality as a conciliator," says Tom Coogan. "He can be firm, but he's not too blunt and he doesn't offend people."

A good example of Spiegel's rare ability to keep the friendship of people he disagrees with was shown in his fight against public housing in New Jersey. The governor favored a referendum to legalize \$100 million in public housing. Spiegel organized the Council for Home Protection and brought together eight groups to fight the bill including builders, realtors, mortgage bankers and lumbermen. Manny himself led the fight at public hearings and earned a large share of the credit for defeating the proposal. But it is significant that he still has the respect and friendship of the governor.

"Manny can keep things sweet," says John Wright, executive

secretary of the N. J. Assn. "He can pull a lot of conflicting elements together and make everybody feel all right. I've watched him work for years, and I know how good he is at getting things done and also how he can get other people to work."

Both as local and state president, Spiegel knitted the builders together, encouraged them to pass regulations that have made New Jersey's one of the most forward-looking groups of builders. He pushed warranties, better codes and better housing.

"I suppose New Jersey has gone further on warranties than nearly any other state," he said recently. "We have been very specific about such points as basements, heating, plumbing and septic tanks. We were also among the first to bond all our members against embezzlement of deposit funds. The NAHB maintenance book was another feature we pushed hard."

On the code problem Manny learned the hard way what a tough job it is to get anything accomplished. New Brunswick, where he builds, has one of the worst code situations in the country—a code passed in 1906 and only amended a half-dozen times in the 47 yrs. since then. Manny started off with bright hopes of not only getting the New Brunswick code modernized but of helping Governor Driscoll to get a new code that would be effective all over New Jersey. So far nothing has happened on either front and the antiquated code still forces Manny to waste hundreds of dollars on every house he builds.

Spiegel the lawyer

Spiegel's legal training is most apparent when he is put in difficult spots at public or congressional hearings. While practicing law he did considerable trial work. As a result, he thinks well on his feet, can talk extensively without notes, and is a strong, forceful speaker. Two years ago he appeared for NAHB before the Senate Banking and Currency Commission. After he presented his written brief he had to defend it before the highly critical committee members. He had a factual answer for every question, never had to use notes and so favorably impressed the committee they congratulated him on his fine presentation. Later the Washington NAHB staff agreed they had never seen such a fine job done by a builder.

It may well be that Manny's greatest contribution will be in working with the high-level governmental officials who will be

Ankers



Experience as a trial lawyer stands Spiegel in good stead. At a hearing before the Senate Banking and Currency Committee, with John Dickerman, left, Herbert Colton, center, he won congratulations.

establishing new housing policies this year. He is eminently qualified to help the Association put its best foot forward.

For low-income families, a practical plan

Spiegel is deeply interested in providing houses for low-income families. Speaking for the Executive Committee he says, "We insist that public housing has failed dismally. Folks who can't afford decent housing can't get it through by public housing. It is inconceivable that the new administration will add to the billions of dollars already invested in this unsuccessful plan and we think the new administration will investigate the situation." He will fight vigorously this year for change of FHA and VA financing regulations. "We need lower down payments and longer amortization," he says. "As we stretch out payments, we are making housing possible for many more families."

"I'm particularly enthusiastic about the new housing reconditioning plan which is now part of our NAHB program," Spiegel told a Chicago press conference (see News). "Many people buy new houses they cannot really afford. Yet they could afford fine reconditioned houses if the government made financial provisions. This is a job for the homebuilding industry because we are in a better position than anyone else to do the reconditioning job. But we need governmental help on financing."

NAHB's new president is strongly behind the trade-in idea now being pushed by the association.

The background and the man

Manny Spiegel has building in his blood. He is a second-generation builder and if the influence of his wife's family is counted, he is a third-generation builder. Mrs. Spiegel's father and both her grandfathers were builders. Their 27-year-old son-in-law, Richard Geiger, is Manny's building partner and there are rumors that Manny has already given his two-year-old grandson a set of carpenter's tools and the latest MPRs.

Like his wife, Spiegel is a native New Yorker. He was born there in 1906, went through public schools in New York and to City College for two years. Then he switched to the law school of St. Lawrence University and graduated in 1927.



The Spiegel Family are all interested in building. Son-in-law, Richard Geiger, left, is Spiegel's partner. Next to him is Judy. Mrs. Spiegel, beside Manny, comes of a building family.

In college he was the playing manager of the basketball team, which Mrs. Spiegel defines as managing the team during its home games and playing occasionally away from home when all the subs could not be carried because of the expense. Manny also played some baseball and a lot of tennis. When he was not playing or managing, he reported sports for the college paper—"everything but chess, which was too slow."

He is a fine pianist and earned his way through college and law school with his own orchestra. As his friends know, he still loves to slide behind the piano keyboard of a dance orchestra today and makes a capable substitute with even a very hot band.

Fritzie as Mannie's aide

Manny met his wife Fritzie the day he entered law school and they were married in 1928. She had heard building talk all her life and has been a great asset to her husband. She travels with him whenever possible, understands his problems, organized the women's auxiliary in New Jersey, helps choose furniture and colors for his model houses and tries (usually not successfully) to see that he gets enough sleep. Fritzie taught school in Westchester for a few years during the 1930's, now continues her interest in children by being president of Infants' Relief, a charity organization that helps asthmatic, cardiac and diabetic children. She gets Manny to help raise the funds.

Both the Spiegels are strong family people and it is immediately clear to visitors that they form an exceptionally close group with their daughter Judy, son-in-law Dick Geiger and their grandchild.

With Manny away so much on NAHB affairs, the Spiegels decided life would be easier in a hotel than an apartment, so now they live at Carlton House in New York. As he builds in various N. J. communities and the Carlton is only a 35 mile drive away, this is perfectly practical. They spend their summers in a comfortable house on the north shore of Long Island.

"I wanted Manny to get as far from his houses as possible," says Fritzie, "so he wouldn't be tempted to work there Saturdays and Sundays. He often plays golf all week end, and it is wonderful for him." But Manny is strictly a week-end golfer, playing for fun and relaxation, and his score is still in the low 90's. He has a piano both in town and in the country and plays them a great deal. He can relax while he plays and can also solve some of his business problems.

Manny and Fritzie travel considerably. They were in South America a few years ago, in Europe last December. "But Manny never has gone on a vacation without looking at houses," says his wife. "He saw a lot of building in England and France."

His first two apartments were built while Spiegel was still in law school. After he graduated he did a little building but he learned more about the business from his law practice, which was almost entirely with builders and realtors. From 1933 to 1940 he did no building but in 1940 he built one project, and in the following years he became a full-time builder.

He built houses in Westchester, then New Jersey. He will soon begin a project in Pennsylvania.

During the war he built defense houses, has always concentrated on relatively low-cost houses. He is not a large builder, produces about 100 a year plus occasional apartments. This year he will build his first shopping center.

Manny Spiegel is a slender man of average height. He is soft-spoken and seldom gets excited or raises his voice. But his NAHB associates know he is a man of convictions and that he will stand up strongly for what he believes. From watching his capable work over a period of years they know that Association affairs will be in good hands this year.



F. J. Higgins

Rutgers Village in N. J., most recent Spiegel project, will have 351 houses. Two-bedroom, 780 sq. ft. house, right, plus full basement and expandable attic, sells for \$10,800, includes range, exhaust fan, vanity.



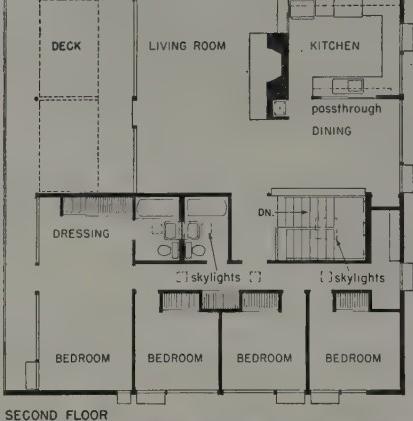
George Van



Lexington Gardens, left, at Passaic, were designed by Architect Erwin Gerber who does most of Spiegel's work. Spiegel built his first two apartment houses while he was still at law school, not yet 21 yrs. old.



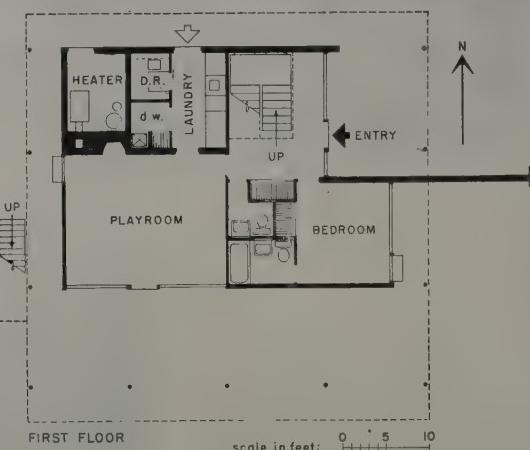
First shopping center for Spiegel, right, will be built at Rutgers Village development during 1953.



Upper floor locates main living spaces off ground for view and breeze. Back-to-back inside baths are skylighted.



South side, above, wide open to nature, shows clear separation of functions: Formal living above, play spaces below.



Lower floor, with smaller enclosed area, uses overhang of upper story for covered entry, perimeter walk, terrace.

This stilt house is practical

Even conservative neighbors like its spacious, protected, well-ordered rooms

LOCATION: New Canaan, Conn.
ELIOT NOYES, architect
PAUL BORGLUM INC., contractor



Photos: Ben Schnall

Here is an all-out contemporary house that makes plenty of practical sense to people in New Canaan, Conn., whether they agree with its version of modern architecture or not.

It makes sense because:

- It puts all the living rooms up on the second floor where you get a good view and better summer breezes.
- It makes the second floor somewhat larger (1,932 sq. ft.) than the ground floor (1,285 sq. ft.) so the good-time space downstairs is shaded against sun and has a play terrace and a complete surrounding passage covered against rain.
- It provides an attractive semicovered second-floor terrace off the living room and a narrower second-story porch off the adjoining master bedroom yielding open space as well as shade.
- It neatly tucks two back-to-back bathrooms upstairs over two back-to-back bathrooms downstairs, all four well placed for practical use. (See plans, p. 118.)
- It similarly stacks the living-room fireplace above the playroom fireplace and the kitchen above the utility space, so a useful dumbwaiter as well as the flues can rise through the same chimney mass.
- It is covered by an economical flat roof, sloped gently toward a central drain, the *only* kind of roof that is drip and icicle-proof in New England winters, and requires no messy gutters to install and maintain.
- It presents a minimum number of openings to the hot afternoon summer sun. And the bedroom wall, with its strip of windows lacking overhangs, is to the eastern side, which is shaded by trees and gets cool before evening.
- Its construction is modular and economical, based on uniform bays 11'-6" square throughout (the southern projection over playroom and living rooms calls for 15'-6" timbers). Except for a pair of concrete-block bearing walls, vertical roof support is all achieved by 3½" pipe columns filled with concrete. Where these pass up through the wooden exterior screen wall they are cased with wood. And five standardized milled sections have sufficient to trim all doors and windows.
- A spur wall of concrete block, which extends beyond the house (see photo), separates the driveway and entrance court from the family play court, gives privacy to the ground floor devoted to "messy living"—involving toys, hobbies, television, darkroom—and laundry.

All this shrewd practicality makes plenty of sense to people in New Canaan.

Why this kind of appearance?

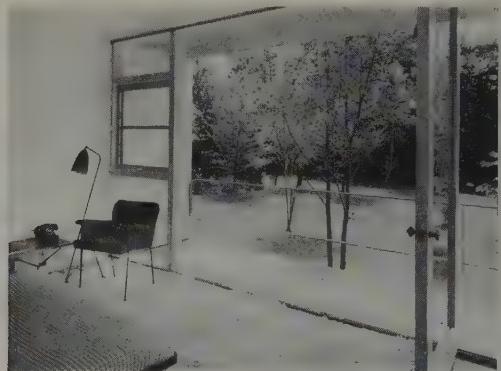
As to the spare lines of the house, the people of New Canaan are less unanimous. Some like it because of its shipshape trimness. Others are held aloof either by differing on the point of taste or by not understanding the method behind its strangeness. For this is a house that derives its elements from both sides of the Atlantic—and from widely separated points of time.

The "air-borne" quality that it gets from being on stilts with its lower story recessed and painted a retiring and neutral dull blue, its upper story projected and painted bright white to



Living-room deck, connecting with bedroom deck (right background), offers choice of sunny or shady strips for sitting. Decking is canvas on plywood; roof soffit, unpainted cement asbestos board.

Garden view of the Noyes house shows living area floating over ground floor.



Glass wall of master bedroom, oriented south. is recessed to provide sun-shading roof overhang, as well as private porch.

emphasize its separation from the earth—all this comes directly from modern France. Architect Noyes confesses that he got his guiding ideas from a house by Le Corbusier at Poissy →

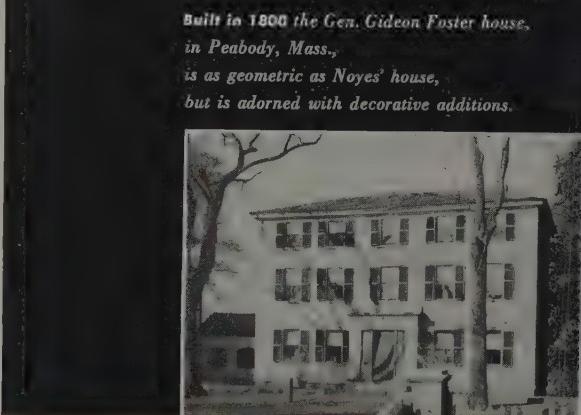
Yet the sharp geometry, the incisive shiplike trim, and the smooth flat painted surfaces can really be regarded as an extension of familiar traditions in old New England. There, houses and boats were built often by the same mariner carpenters and both kept fresh-painted; and even the earliest white houses seemed to more than one traveler from abroad to resemble “birds poised momentarily over the earth” rather than earth-rooted houses like those of peasant-grounded Europe.

One more item of knowledge should, perhaps, precede personal judgment of Architect Noyes’ result, and that is knowledge of what makes the difference between this house and a traditional New England house in the way of getting architectural “interest.” A dignified old New England house, for example, the Foster house in Peabody, Mass. (shown at right), depends basically on a geometry as sharp, regular and formal as this; its adornment comes from symmetry, a regular rhythm of windows, and decorative additions such as roof trim, portico and shutters—all elements primarily of the wall surface. Architect Noyes’s house depends on a three-dimensional and asymmetrical interplay of advancing and receding planes; solid, transparent or pierced surfaces; and large contrasting areas of color rather than the repeated flick of green shutters.

These facts bespeak an art thoughtful and serious.



Guiding ideas behind the Noyes house is Le Corbusier's Villa Savoie at Poissy, France, built in 1928.



Built in 1800 the Gen. Gideon Foster house, in Peabody, Mass., is as geometric as Noyes' house, but is adorned with decorative additions.



Second-story living-room spaces continues back into dining area and over open stairwell, right. Walls and ceilings are of plaster, fireplace of brick. Bookcase, left, has telephone pass-through to kitchen.

Lacy, open stair, made of iron stringers, oak rails and risers. plays up flow of space between the two levels Walnut cabinet, top, acts as sideboard. stair rail, housing for radio speaker.

Main approach side

bears noticeable family resemblance to Corbusier's Villa Savoie, opposite. Spur wall divides entry, play area.



Do these pioneer designs foreshadow the look of tomorrow's popular house?

From all the hundreds of thousands of houses built since the war, New York's Museum of Modern Art has selected these 19 to show the development of domestic architecture since 1945.*

The basis of the selection was "quality and significance." All the houses chosen are packed with ideas; and behind the very different and modern look they all share lies a great deal of common sense and plenty of thinking which should make tomorrow's house more pleasant to live in—and eventually less costly to build. These are just the kind of architect-designed houses our editors like to show on these pages, and indeed 16 of the 19 were first shown nationally (or are scheduled) in the pages of *HOUSE & HOME*.†

Ten years from now some of the fresh design patterns, new planning ideas and new structural methods tried out in these very special houses may be commonplace. They may be as widely accepted as today's ground-hugging silhouette, wide roof overhang, floor-to-roof picture window, corner window, and the open interior plan—features which drew ridicule when they first appeared in Frank Lloyd Wright's "prairie houses" 30 to 50 yrs. ago.

Custom-built houses like these have always been the testing ground for new ideas. Sometimes the idea clicks and is borrowed for a million other homes, and sometimes a new idea fails and is forgotten. Occasionally an idea rejected by the experts appeals at once to the public, and more than once a halfway compromise has fallen flat on its face.

House architecture in America is going through a great and very difficult revolution. A generation ago architects were still tied to the past and busy following designs and construction methods of earlier generations. Now, they are cutting loose to develop a new architecture that will take advantage of today's new materials and today's new construction economies to suit today's changing way of living.

Such a revolution has called for thousands of experiments to see which new construction techniques would work and which would not, to see which new construction techniques could be reconciled with good design and which could not. Here are the 19 experiments the Museum of Modern Art has selected as outstandingly successful from a design point of view.

The captions under each house give some suggestion of the questions for which the architect was trying to see the answer. In each case, this was a double question—would the new idea be practical? and how would the new idea look?

* "Built in USA: Postwar Architecture." Published by
The Museum of Modern Art.

† Or, before 1952, in our parent magazine, *Architectural Forum*.



PLASTIC ROOF IN TENSION

Can roofs be spanned with steel bars under tension and sprayed with the navy's stretchable, 30-yr. mothballing plastic?

Twitchell & Rudolph, arch'ts;
photo Stoller; AF, June '51

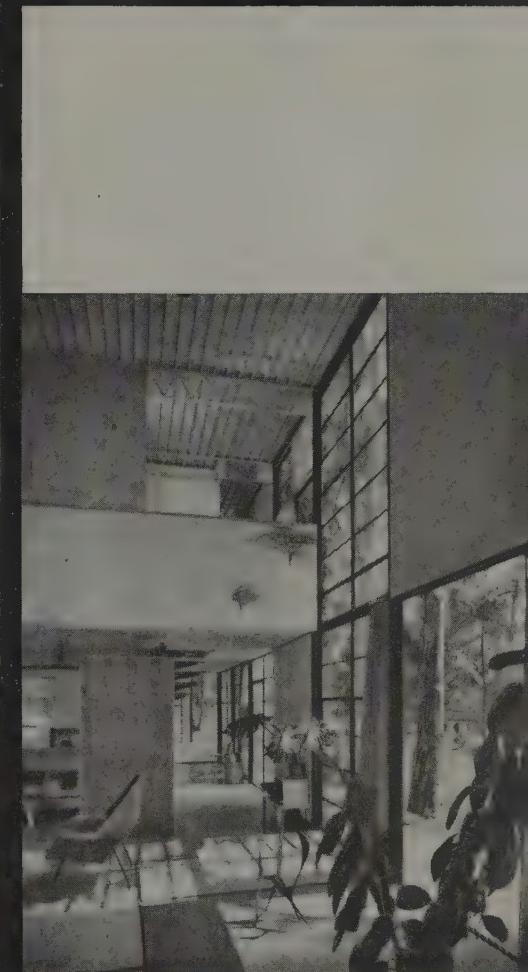


CONCRETE STRUCTURE

Will a concrete frame give you the huge spans and the spacious interiors required for really flexible planning?

Richard Neutra, arch't.;
photo Shulman, AF, Sept. '49

POSTWAR HOUSES OF "QUALITY AND SIGNIFICANCE"



"MECCANO SET" HOUSE

Why can't you build a beautiful house out of standard steel parts from a manufacturer's catalogue? Do they have to be confined to handsome factories?

Chas. Eames, arch't.;
photo Shulman; AF, Sept. '50



MODULAR STEEL HOUSE

Could steel replace lumber in many a future house, and will it be a miniature edition of the office or school-type frame?

Raphael Soriano, arch't.;
photo Shulman, A&A, Nov. '50

SPLIT-LEVEL INTERIOR

Can changes in level combined with maximum openness produce more interesting interiors and more interesting views outdoors?

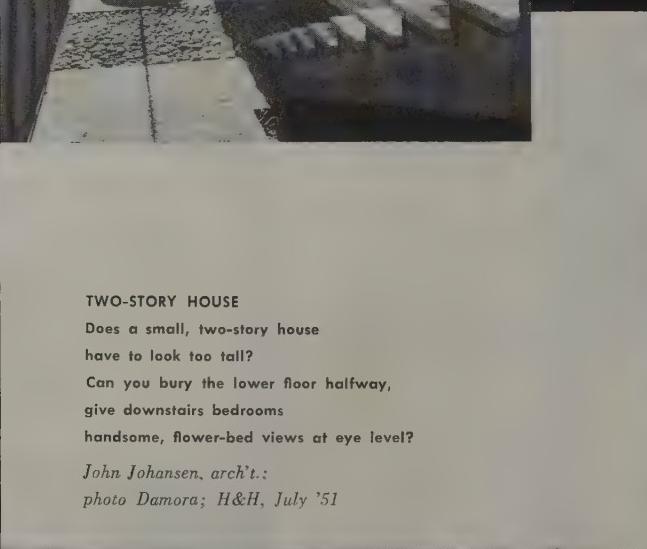
Mario Corbett, arch't.;
photo Stone & Steccati; H&H, July '52



CURVED HOUSE

Does a concave window wall trap the sun, give you more privacy from neighbors and a greater variety of views than a flat facade?

Frank Lloyd Wright, arch't.;
photo © Stoller; AF, Jan. '51



TWO-STORY HOUSE

Does a small, two-story house have to look too tall?
Can you bury the lower floor halfway, give downstairs bedrooms handsome, flower-bed views at eye level?

John Johansen, arch't.;
photo Damora; H&H, July '51



DOME ROOF

Can the rotating, twin shell structure (as in observatories) be made to give your house unexpected views of skies and hills, open it to sun and breezes as desired?

Soleri & Mills, arch'ts.;
photo Shulman; AF, June '51



LONG HOUSE

Can an in-line plan give handsome shiplike lines to a flat-topped house, with decks raised off the ground to make it look more self-contained and save landscaping?

*Gregory Ain, arch't.;
photo Shulman*



CIRCULAR PLAN

Might a circle give you "conning tower" views and allow you to plan continuous space that is never seen all at one time?

Frank Lloyd Wright, arch't.; photo Stoller; AF, Jan. '51

POSTWAR HOUSES

OF "QUALITY
AND SIGNIFICANCE"



CARPENTER HOUSE

Might the subtle handling of wood details supply the warm charm formerly derived from fancy features?

*Hurwell Harris, arch't.;
photo Parker; AF, Oct. '51*



GLASS HOUSE

What happens to a house
if the plan is all one room and the walls all glass?
Does this extreme test case show
a good way of making
all the landscape part of the house?

*Philip Johnson, arch't.;
photo Stoller; AF, Nov. '49*

PATIO PLAN, BELOW

Might maximum privacy be gained by
glass walls facing to the inside
around an interior court—an idea
that incidentally makes these rooms
look much larger?

*Philip Johnson, Landis Gores,
arch't.; photo Stoller
H&H, Jan. '53*



REFLECTING POOL

Why not a shallow pool
sunk into the terrace
to reflect ripples of sunlight into your house,
cool the surrounding air,
and give you a beautiful outdoor feature
for little money?

*Twitchell & Rudolph, arch'ts.;
photo Stoller; coming in H&H*

POSTWAR HOUSES OF "QUALITY AND SIGNIFICANCE"



STEEL HOUSE ON STILTS

Might continuous footings be eliminated
by use of widely spaced steel posts
which clamp roof and floor between them,
leave the interior open, capable of rearrangement?

*Mies van der Rohe, arch't.;
photo Hedrich-Blessing; AF, Oct. '51*



TEXTURED WALLS

Is not a systematic, and decorative, combination of materials like this more pleasing than the vagaries of today's "banana split"?

Schweikher & Elting, arch'ts.;
photo Shulman
AR Nov. '47



BLINDERS

On a narrow lot, can you give yourself privacy and emphasize the best view by putting well-designed blinders on both sides of your house?

Marcel Breuer, arch't.;
photo Schnall; *H&H*, May '52



TERRACES

Instead of joggling the roof with the plan, why not this cheap, wide, covered terrace as an extension of a glass-faced room?

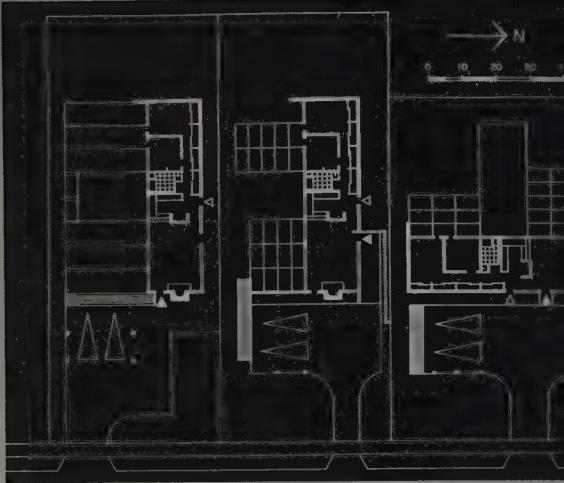
Edward Barnes, arch't.;
photo Meisel; coming in *H&H*



BIRD CAGE HOUSE

To keep out insects and let in the breeze, why not this sky-topped living room surrounded by inexpensive screening?

Igor Polevitsky, arch't.;
photo Stoller; *AF*, May '50



LOCATION: Pasadena, Calif.

BYLES, WESTON & RUDOLPH, designers and contractors



By facing its narrow end to the street, this \$11,500 house offers

Luxury living on a small lot

Here is a top example of a fast-spreading prototype that builders are beginning to ask architects about.

Why? It gives twice the livability on half the lot

"To provide convenient and comfortable living, especially for moderate-income families with children, builders must make better use of the average city or suburban lot."

Three variations (inset) in site plan and carport placement suggest the many others possible.

Long side patio results from placing house at one side of lot with its narrow end to street. Photo (left) was taken outside bedroom looking towards front of lot; back of carport storage wall is in background. Note deep overhang for south sun, asphalt paving, easily maintained 16' x 16' lawn.

Absolute privacy (below) is achieved by locating carport to shield terrace from street, erecting plastic-screen fence around entry court, using windows of obscure glass toward neighbors at right. Every inch of 45' wide lot is used.

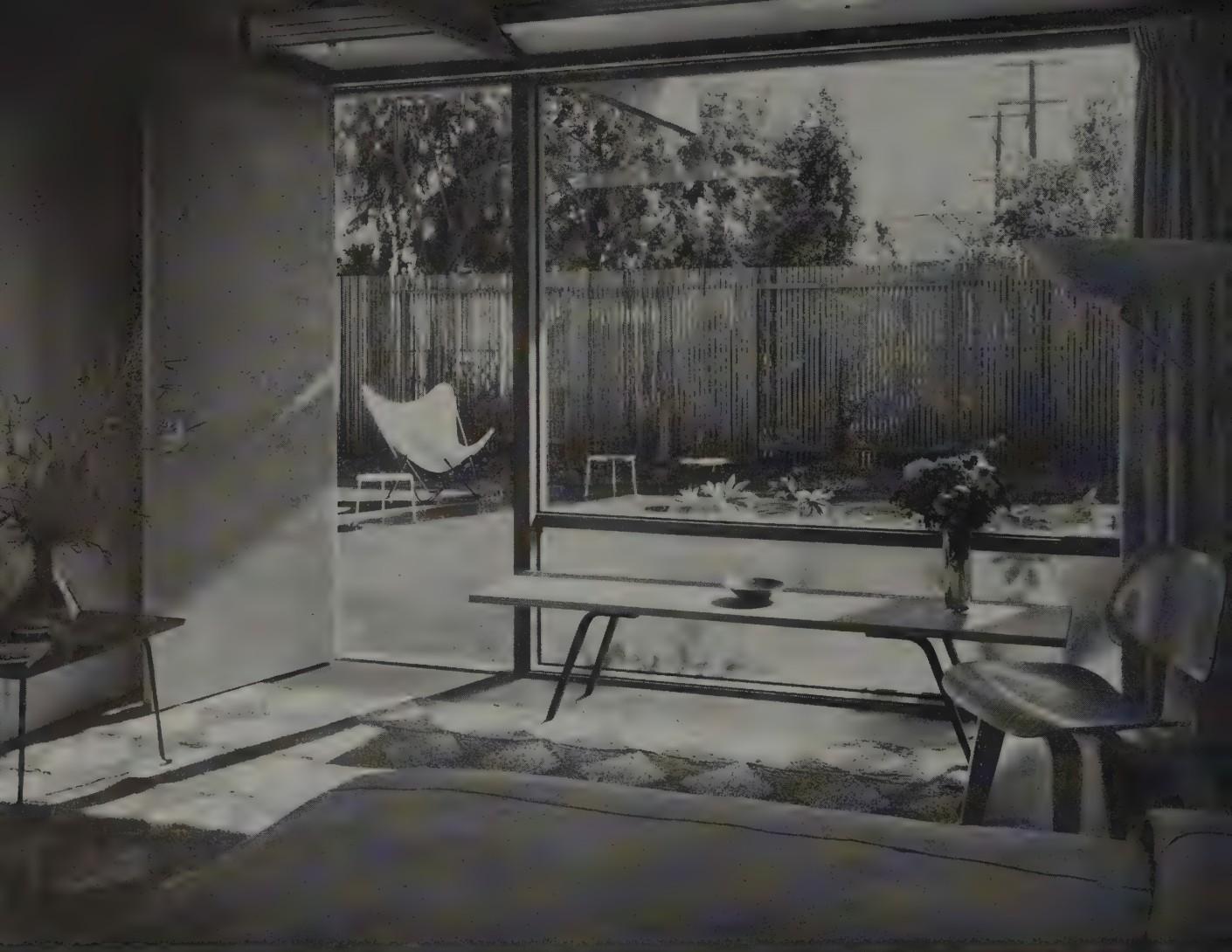
With this general thesis as a starting point, the designers of the small house on these pages have evolved a solution that should catch the eye of merchant builders and architects who study their future markets imaginatively.

It is not a new solution. The idea of a "lot-length" house, with its long dimension paralleling the long side of the lot, has been gaining popular momentum through the independent projects of architects and builders scattered over the country (e.g., Anshen & Allen's tract of 30 builder houses, H&H, Oct. '52; individual houses by Bassetti & Morse and Paul Kirk, H&H, Sept. '52). About the only thing that seems to be holding it back from even wider acceptance is the notion, not necessarily well-founded, that people like their houses to look as big as possible from the street.

The Byles, Weston & Rudolph version of the lot-length house has the exceptional merits of **1.** outdoor living for all rooms on a big side terrace, **2.** almost complete privacy, and **3.** an ingeniously simple floor plan and framing system that kept total costs down to \$11 per sq. ft. (excluding land but including architectural drawings, overhead and profit; see cost breakdown, p. 132). Three houses of this type have been built in scattered locations in Pasadena, several others elsewhere in southern California, and the designers have received inquiries from a handful of West Coast operative builders. The low square-foot figure of \$11 for a small, individually built house indicates still more economical construction could be achieved if the house were produced in quantity.

Photos: James H. Reed

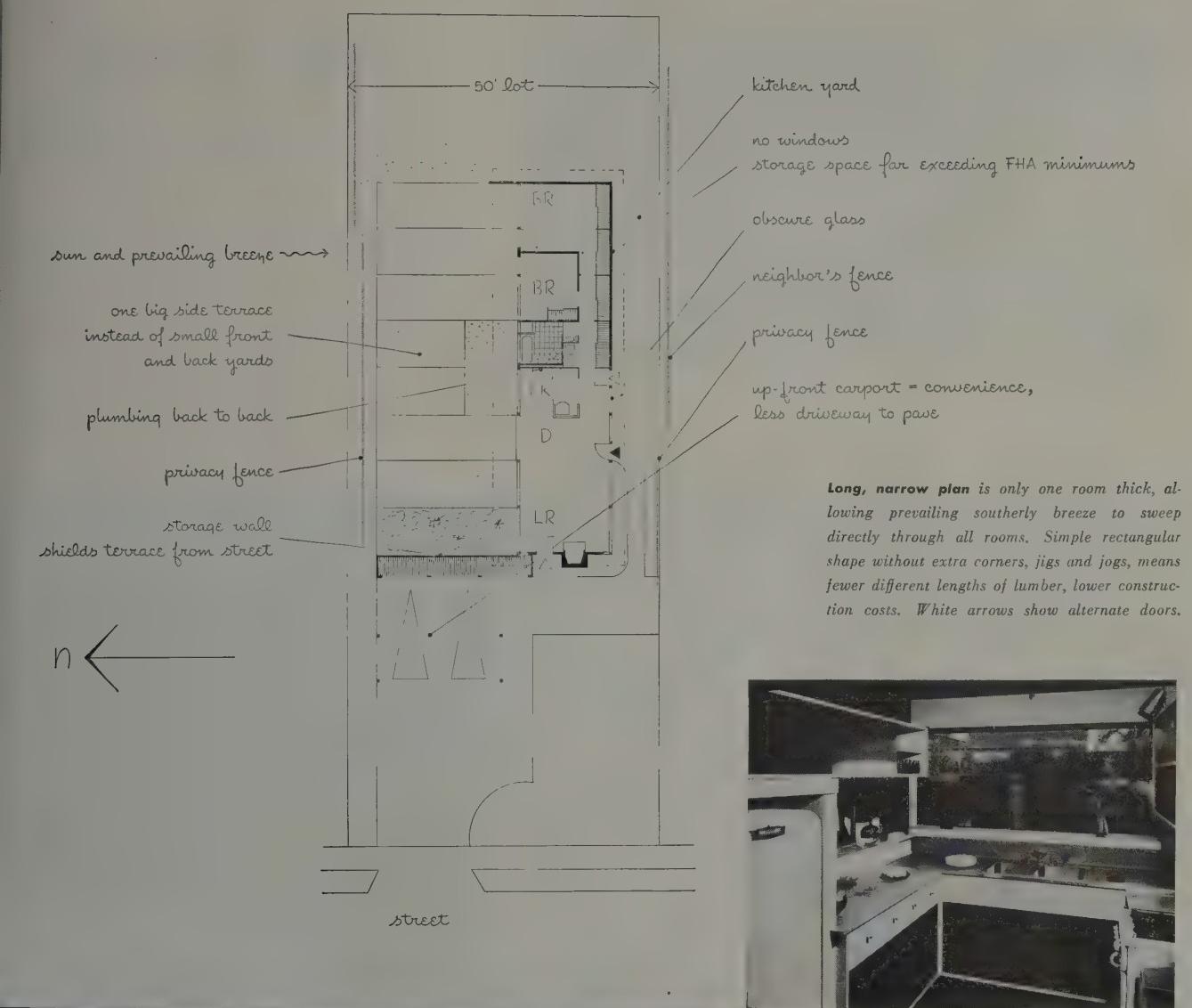




Master bedroom has unobstructed view of terrace through fixed glass, frosted below mullion so that splashes won't show after plants or paving have been watered. Movable transoms and door give clean, inexpensive separation of view and ventilation. Privacy fence of 6' redwood slats is on property line.

Living room, seen through kitchen pass-counter, has high windows of obscure glass to north for privacy, window walls to south. In this model a front door was added on the street side.





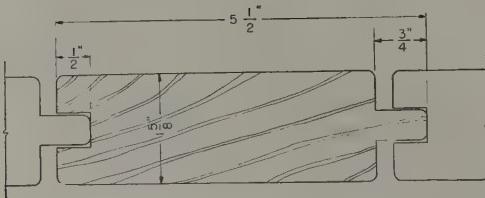
Long, narrow plan is only one room thick, allowing prevailing southerly breeze to sweep directly through all rooms. Simple rectangular shape without extra corners, jogs and jogs, means fewer different lengths of lumber, lower construction costs. White arrows show alternate doors.



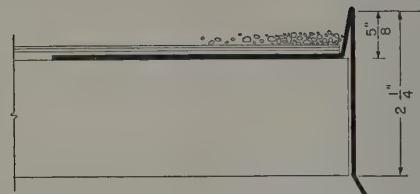
Bright, compact kitchen has 8' wide window over sink where lady of house can enjoy view of garden, supervise playing children. Cabinets have sliding doors of pressed fiberboard, maple and stainless-steel work surfaces. Space between 8' o.c. beams contains plywood vent transom.



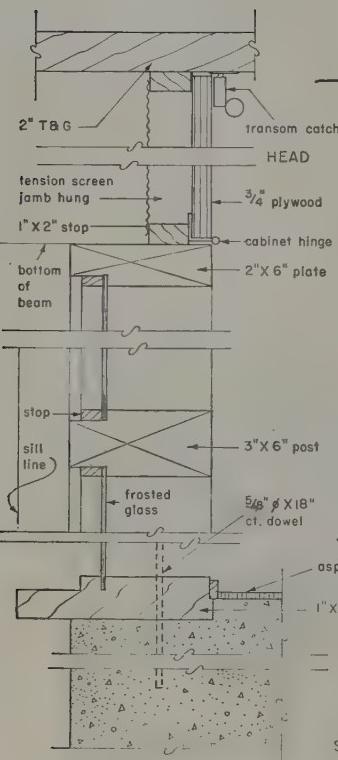
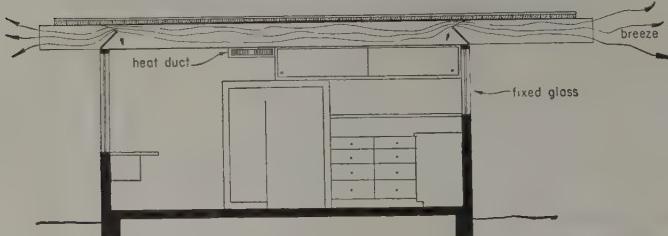
Dining area can be on terrace at left or anywhere in living room. Semi-open kitchen is separated by pass-through and two-way shelves above; large white cabinet houses refrigerator and broom closet. Note hot-air register and flat duct hung above cabinet.



Roof decking has $\frac{1}{4}$ " gap between boards to accent shrinkage that will occur and make a decorative feature of it.



Gravel stop of 26 ga. galvanized iron is bent down over roof decking, eliminating need for a separate fascia board.



Transverse section through kitchen looking toward living room: high transoms, protected from rain by overhang, allow continuous cross ventilation; overhang is deeper (4'-6") on south to keep out high summer sun; long wedge-shaped tapers between beams and decking give roof slight two-way pitch for drainage. Interior partitions, like outside walls, go up 7' to top plate under beams, bear no load.

Section, left, taken at fixed glass window wall shows (top to bottom): movable transom and fixed screen; simple post-and-beam detailing, single-pour slab and foundation.



COST BREAKDOWN, HOUSE No. 3

Permits and insurance.....	\$ 137
Grading	63
Septic tank	300
Concrete slab	739
Fireplace	173
Lumber and millwork	2,720
Carpentry and labor	1,993
Plumbing	844
Electrical	488
Heating	345
Roofing	310
Glass	284
Floors and counters	243
Hardware	175
Painting	404
Equipment and cleanup	426
Paving	250
	\$ 9,834
Overhead and profit.....	1,166
	\$11,000
Plans	500
	\$11,500

Inexpensive forced-air heating system: a single duct leads in straight line to all rooms, is suspended below ceiling beams without cutting and fitting into structure. In this house forced air cost little more than panel wall heaters.

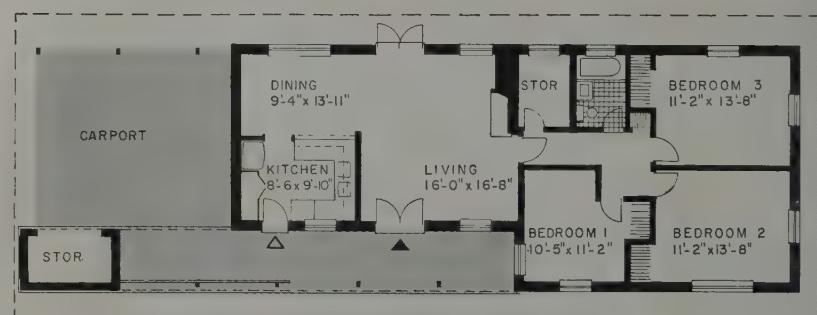
Clean lines come from reducing number of pieces of wood that go into structure. Whole house, 64' long, is laid out on module of 8' bays, its 16' width spanned by 3 x 12 beams resting on 3 x 6 posts. The designers, influenced by famed old Green and Green houses of Pasadena, accented structure by allowing beam ends to protrude. This is another house built on the same general floor plan as the one in preceding pictures; in a third house, not shown, stucco exteriors have been replaced with plywood.





Photos: Biignola

O'Neal's largest house, model 12, is 77' long, including garage and for \$13,250 makes an impressive appearance on its half-acre lot. For \$500 more a buyer gets a full acre. Scientifically designed for warm, humid weather it would be ideal for Gulf states or the Southwest. Open plan lets breeze blow through the entire house.



Most families will turn this big double carport into a paved, screened outdoor living room with 360 sq. ft. of usable space.



Louvered front porch could be screened or left as it is. Louvers let breezes through but provide privacy from street for kitchen and carport area.

Charge off good design to sales

**Builders who scream at paying more than \$25 for design
might find that even 1% paid to an architect
would save them a lot more on their selling costs**

LOCATION: South Miami, Fla.
MASTON G. O'NEAL JR., builder
ALFRED BROWNING PARKER, architect
PRICES: \$12,150 to \$13,250

Builder Maston O'Neal of Miami has discovered an easy way to sell houses. He leaves his furnished models open and lets his houses sell themselves. To date this informal arrangement has kept his sales ahead of production.

For these fast and easy sales, O'Neal gives the credit to his architect and the sales-appeal he planned into the houses. "But I give myself credit too—for picking an architect who understands the builder's problems and costs as well as he understands design."

To this job Architect Parker brought a background of design of commercial buildings, schools, luxury houses and work with several Florida builders. He is now working with half a dozen builders including Tom Coogan, for whom he has just designed a new 1953 series to be built in Ft. Lauderdale.

Parker helped O'Neal get not only sales but financing too. Said Mortgageman Lon Crow Jr., "We have not been in the VA market but when something comes along that we feel is worthwhile and considerably above average we want to handle it. These are good houses in a good location."

Good houses for a hot climate

Too many builders figure it is easier to sell a prospect what he is accustomed to than to explain the advantages of something new and different. In Florida, where so many home seekers come from up North, this lazy salesmanship makes too many builders offer conventional northern houses instead of houses specially planned for the Florida climate, where the summer sun is intolerable and only the never-failing southeast Trade Wind makes summer living pleasant.

But not Parker and O'Neal. They based their whole sales strategy on offering a Miami house for Miami weather. Their success suggests that the public is quicker to accept better ideas than most builders think—just as it demonstrates again the wisdom of letting a good local architect design a house for the site instead of borrowing a plan from a plan book. (A house that is fine for Seattle might be a dud in New Orleans. What is good for Phoenix is no good for Chicago.)

Here is how Parker and O'Neal applied the Florida rules for summer comfort:

► Keep out the sun with roof overhangs, reflect the sun's rays away from the house with white roofs, light-colored exterior walls.

► Capture as much shade as possible from carports and trees. O'Neal saved every tree he could, emphasized their value by naming his project "Pine Tree Estates."

► Let the breeze wash through the houses. These houses have twice as many windows (23) and twice as many doors (4) as many houses in their price class. Largest windows are put on the windward side to create a Venturi effect: let the breeze in gently through large openings but send it out briskly through small ones.

► Give most bedrooms two exposures; many have three. Awning-type windows let in the breeze (far better for Miami than double-hung), yet when open keep out the frequent summer rains. The open plan lets the breeze sweep through the entire house, also keeps the kitchen ventilated.

► Design the house one room wide if possible for cross-ventilation. Like Parker's earlier houses for Coogan (AF., Oct. '51) these are long and slim, rather than square. In addition Parker has completely redesigned the kitchen, dining area and bath locations and added a big fireplace. Entrance door is shifted and numerous features, including a separate all-purpose room, have been added. The long porch and carport in model 12 are new, windows are new, wider overhangs are different.

► Locate each house on its lot to keep bedrooms to the southeast wherever possible to catch the trade winds which blow constantly. Large lots permitted the architect to orient each house to its best advantage.

► Keep the houses as freestanding as possible so as not to block the breeze. Of the 128 lots O'Neal developed, 70 are half an acre, 58 are a full acre.

► Provide space that can be screened for outdoor living. Most families will screen their porches, many will turn their carports into a screened "Florida room"—outdoor living space similar to that of the big outdoor rooms of Miami's luxury houses. Numerous buyers are paying an extra 82¢ per sq. ft. to have O'Neal add terrazzo floors to their carports.

► Sidestep mildew and wood-decay problems of the damp summer climate by masonry construction, a terrazzo slab, closets ventilated by louvers.

O'Neal also complies with the tough building code in order to meet the periodic hurricanes that sweep the area where he builds. See construction photos for details.

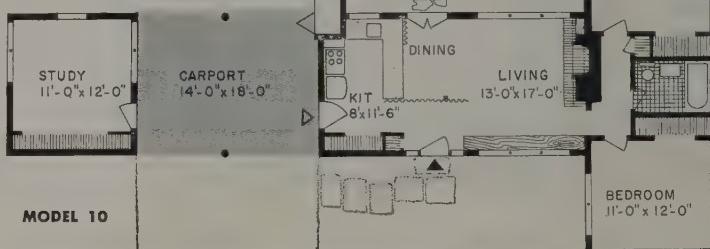
O'Neal offers three different houses

Model 10 is a 1,148 sq. ft., two-bedroom house with a separate all-purpose room. It can be used as a third bedroom, a study, TV room, playroom, workshop or for storage. This house has 23 windows and four doors. Since most families will screen the double carport (and some may do it badly) it would be helpful if the model house were screened to demonstrate how it should be done. Price: \$12,200. (Photo right.)

Model 11 is a long, narrow 1,102 sq. ft. house with one narrow end facing the street. It has two bedrooms, a dining room separated from the living room by a massive fireplace. It has a 130 sq. ft. covered porch next to a 164 sq. ft. carport and this combined area could be screened. If a third bedroom or study is wanted, the carport could be enclosed by concrete blocks that match the house. Most of the interior photos are of this model. Price: \$12,150. (Photo p. 137.)

Model 12 is the largest house, with 1,187 sq. ft. and three bedrooms. It is 77' long and if the front porch and carport were screened a buyer would have 1,781 sq. ft. of usable space. This house has facilities for an extra bath, for which many families have paid an extra \$650. On a half-acre lot it sells for \$13,250. But on a full acre of land (at only \$500 more) with an extra bath and the porch and carport screened, this house, properly landscaped, looks a lot more expensive than it is. (Photo p. 134.)

Unique feature of model 10 is separate all-purpose room used as bedroom, study or workshop. All houses were brand new when photographed, show no landscaping which will soon soften exteriors.



Plank-and-beam ceilings make living room and kitchen seem larger. Open plan helps keep house cool. An excellent feature of all houses is two-way cabinets which open into kitchen and dining area. Decorative screen at left gives some privacy from front door but lets breeze through, keeps open-plan feeling of the house.



Three completely different houses are offered buyers. By enclosing carport of model 11 a family could have a third bedroom. Or the carport and porch could be screened.

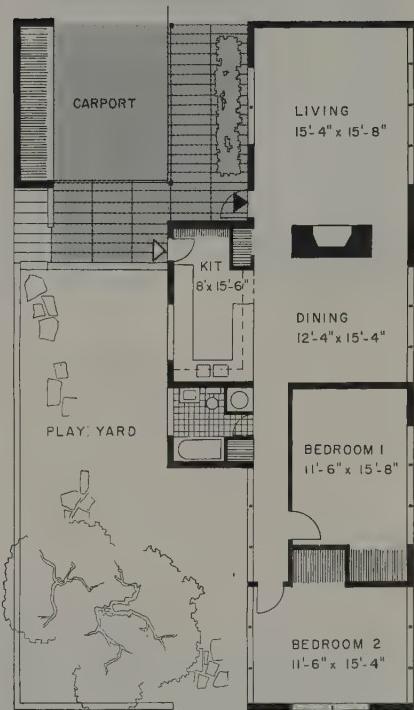
Photos: (below) John Walther, courtesy the Miami Herald; (above) Brignola



Private patio of model 11 shows how some families will add fence. Awning-type windows, kept small on leeward side, let breezes through but keep out rain. White marble chip roof is standard, serves to keep houses cool.



Large cement brick fireplace separates living room from dining room. House seems larger because of long vista on both sides of fireplace (see plan).



MODEL 11



Twice as many windows and doors as in typical house let in breeze without carrying windows to floor. Pattern of openings might be simplified, unified.

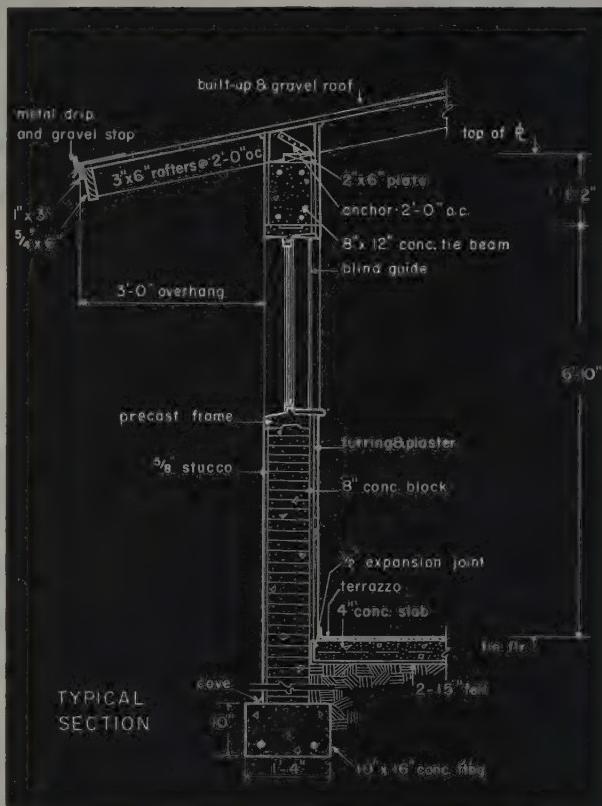
Construction: concrete block and stucco

O'Neal has a good reason for his construction. He uses the typical concrete block and stucco methods which buyers are accustomed to in south Florida and with which the trades are all familiar. Two masons and two laborers take 11 hrs. to lay the block. For interior finish he uses 1" x 2" furring strips, then $\frac{3}{8}$ " rock lath, then $\frac{3}{8}$ " plaster. He says this costs no more than if he painted the interior face of the block and omitted lath and plaster because his masons would have to lay the blocks more carefully, and wiring in the terrazzo and walls would cost more. (In Miami schools, exposed block that are painted cost as much as plaster.) Two coats of plaster costs O'Neal \$1.20 a sq. yd.

The $\frac{3}{4}$ " terrazzo floor is poured the day after the slab is poured and is left rough about a week, then is rough-ground. The final polishing is done later. O'Neal says his terrazzo costs from \$350 to \$450 (depending on size) or about \$150 more per house than if he installed asphalt tile. Terrazzo is a sales feature both for its luxury appearance and because of the Florida humidity.

Roof rafters are of fir, spaced 24" o.c.; on top of them is 1" x 6" cypress T&G sheathing with a V-joint which is exposed. Roof is 5-ply built-up with white marble chips on top. The fireplace is made of cement bricks 4" x 8" x 16" and takes one man and a helper two days to build, including the chimney. It costs about \$300, or more than a simple central heating system.

Carpentry costs about \$1,000, plus \$335 for the kitchen cabinets, all of which are two-way and finished on both sides. O'Neal says he could have saved \$150 on his cabinets but wanted the best. Wiring costs \$310, septic tank \$130, and well, including pump and 42 gal. tank, costs \$175. Because of his half-acre and one-acre lots there is no sanitary objection to having both a well and a septic tank on each lot. Streets are paved but absence of sidewalks and underground utilities does not penalize O'Neal for developing his big lots. He sells his land for what it costs him—\$1,000 an acre.



Precast concrete window frames cost about \$11 each. It requires four men to install one of size shown below. Top of window is always at top of concrete block. Over windows runs the poured, reinforced tie beam which encircles house to meet local hurricane construction codes. Interior wall has two coats of plaster over lath nailed to furring strips.

Construction photos: H & H Staff photos



Two masons and two laborers take 11 hrs. to lay up block for one house. Block goes up fast because exterior is later stuccoed, interior is lathed and plastered. Drawing at upper right shows details of footings, slab and walls. This is standard Miami construction which local mechanics know well.





Ridge beam is notched for 3" x 6" rafters which a two-man team installs. At sidewalls rafters are strapped to plate which is bolted to tie beam.

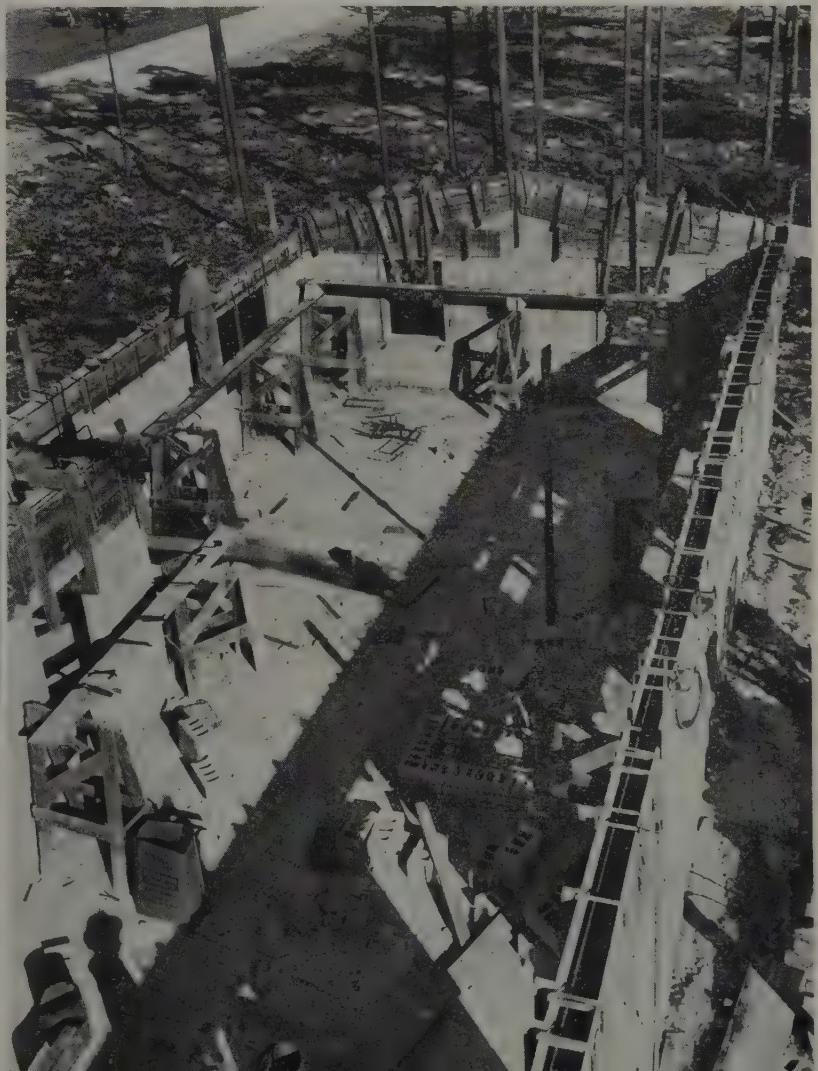


Built-up roof goes on top of T&G sheathing and then is covered with white marble chips which serve as an effective way of bouncing sun heat off the top of the house.

House ready for tie beam to be poured with wood forms in place on all four walls. Interior partitions are not added until later, which gives workmen free access to all floor area. Terrazzo floor has been installed and given a rough grinding but is not given final polish until later.



Concrete for tie beam at top of block wall is poured inside wood forms as crane operator rapidly swings bucket back and forth between ready-mix truck and operator on the wall. Two laborers tamp concrete to make sure all space is filled. Drawing on opposite page shows the four steel reinforcing rods in the beam. Pouring takes about 1½ hrs. Forms are stripped off next day. All jobs except common labor are subcontract.



How to heat a slab house with warm air

Perimeter vs. conventional heat:

Which is better? Recent tests, a milestone in heating research, give the answer

Results of a three-year investigation at the University of Illinois prove the superiority of perimeter heat over conventional warm-air heat in slab houses—long a trouble spot for builders.

Moreover, these tests nail down one kind of the many perimeter systems as best of all: the perimeter loop (with five feeders) whose ducts rim the slab like a picture frame. This system kept 90% of the floor above 70°. There were no cold spots, and floor-to-ceiling temperatures varied by no more than 4° when it was a frosty zero outside. Other results:

- Conventional overhead forced-air and gravity systems with high inside wall registers are unsatisfactory. Heat stratifies at ceiling level and floors stay cold. In fact 50% of floor-surface temperatures were less than 65°.
- Even with radial-type perimeter heat, 25% of floor-surface temperatures are under 65°. Cold spots predominate around windows and doors.

Cosponsored by the National Warm Air Heating & Air Conditioning Assn., these tests were conducted in a special house designed to duplicate field conditions and conform with standard frame construction. Elaborate controls recorded a multitude of indoor readings over a wide range of outdoor weather conditions. After digesting stacks of graphs, charts and statistics, university engineers reported their findings recently at the association's annual convention in Cincinnati.

The test house

Built in 1949, the one-story test house, research residence no. 3, has inside dimensions of 24' x 32' (768 sq. ft.). Other features:

- Slab floor of 4" gravel fill on the original grade;
 - Heavy duplex paper vapor barrier with tarred joints;
 - 4" thick concrete slab with 25/32" thick asphalt-coated, fiber edge insulation;
 - Double-hung, single-pane, wood sash windows;
 - Uninsulated walls, no window storm sash;
 - A vented attic with 35/8" batt insulation over ceiling;
 - All heating apparatus standard equipment used by builders.
- Based on maintaining 70° indoors, the heat loss was approximately 51,600 Btu per hr. for 10° F. outside.

How the tests were conducted

Main research was concentrated on the two most important factors of winter comfort: room air temperatures (especially at floor-to-head level) and floor surface temperatures. Recording instruments made continuous daily records of these temperatures at 250 spots in the house for three winters. The house was furnished and occupied to make the results completely valid.

The tests, based on warm-air heating for a slab house, did not cover the efficiency or performance of any type of hot-water system such as radiant

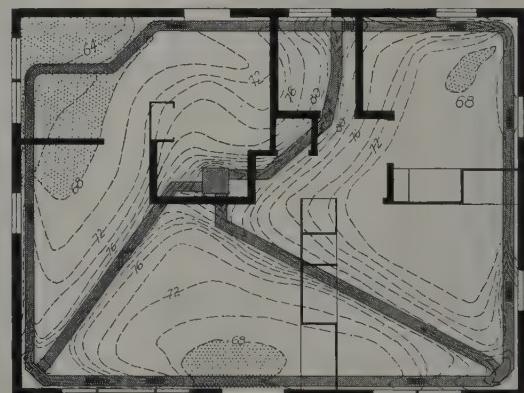
Cleveland Keystone Press, Inc.



Research emphasizes importance of warm-air supply at windows. Conducting tests were (l. to r.) L. Meyer, National Warm Air Assn.; M. E. Childs and R. W. Roose, University of Illinois.



Floor supply registers with adjustable fins to control air deflection provide better heating than nonadjustable ones.



Floor-level temperatures were carefully charted for all systems. Warm-air pattern for this three-feeder loop clearly indicates floor warmth is directly related to number of feeders in slab; at least four are needed for best results. (Shaded areas here are less than 68°.) Similar chart for a five-feeder perimeter loop showed less than 10% of floor under 70°!

slab heat or hot-water baseboards. Both warm air and hot water have their specific advantage. A summary of the main points reported in Cincinnati*:

Conventional overhead ducts—poor performance

Warm air delivered to rooms through overhead ducts and registers, with return-air intakes near the center of the house, is the most common warm-air system because a minimum of ductwork makes it cheapest to install. This method was tested as a forced-air system and as a gravity system without a fan. (When the fan was removed the ducts were changed to make the system suitable for gravity operation.) Although forced air performed better than gravity, both methods proved unsatisfactory.

In both of these systems warm air stratified at ceiling and floor was as much as 18° colder even with outdoor temperatures only 30 to 40°!

Conclusion: Never use overhead ducts in basementless houses. (In fact some regional FHA offices have already banned this system for slab houses. However, in basement houses conventional ducts work well provided return-air intakes are installed in the outside wall, preferably under windows.)

Radial ducts—fair performance

This perimeter heating method spreads feeder ducts out like spokes from a centrally located furnace to outside walls. At the end of each duct is a floor or baseboard register.

Floors were kept comparatively warm because the ducts radiate heat to the slab. However, this system falls down at outside walls; the tests revealed cold spots under 65°. The floor was warm—70° or more—only in the middle of the house. All told about 50% of the floor was less than 70°. Unlike the loop system (see below), floor-to-ceiling differentials varied by 7°.

Conclusion: A radial system gives fair performance (though better than a conventional system because of heat in the slab). But for only slightly extra duct cost (if any), a perimeter loop gives luxury heat.

Perimeter loop—excellent performance

Here is ideal heating because warm-air ducts around the slab provide heat where it is needed most. About 90% of the entire floor was kept over 70°. Temperatures varied by no more than 4° between floor and ceiling and between opposite ends of the house. Fuel consumption was slightly higher than for the radial system.

Despite ducts set 2" under the slab floor, there was good response to sudden changes in outdoor weather; there was no under- or overheating during periods of rapidly changing outdoor temperatures.

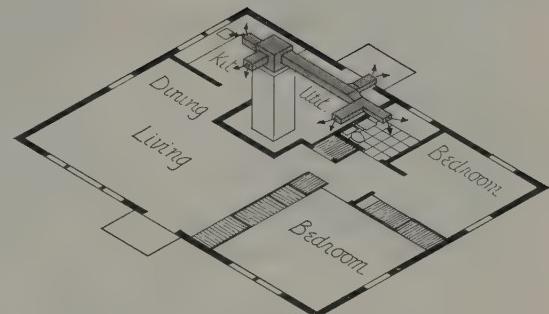
Conclusion: Researchers at the University of Illinois are convinced that for warm-air heating the perimeter loop has no peer in slab houses.

How to design a perimeter loop system

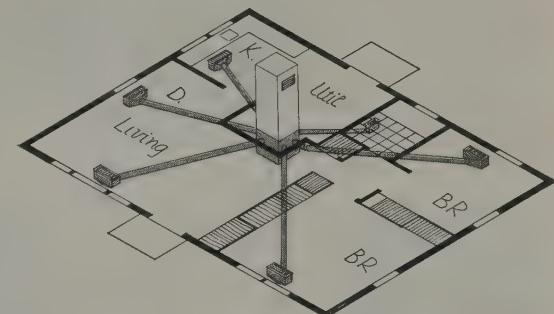
When the perimeter loop is used the National Warm Air Heating & Air Conditioning Assn.† makes the following recommendations:

- Keep feeders as short as possible to distribute heat evenly throughout the house.
- At least four or five feeders (but fewer than needed with a radial system) should be used for best results, and should extend into all exposed corners of the house.
- Supply registers should be located under windows where warm air can neutralize cold down-drafts.
- Use of two supply registers instead of one, especially in large rooms, will produce better air diffusion and more even heat.

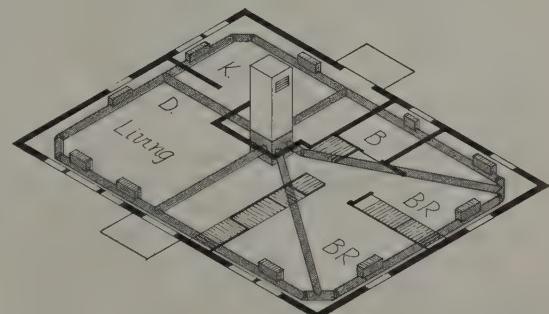
(Note: Since good heating is related to number of slab feeders and outlets, several heating firms say that a deluxe radial system—with eight to ten feeders—performs as well as a perimeter loop.)



Heating by conventional duct-work is poorest, should never be used for slab houses.



Radial system gives fair heat. Cold spots occur between feeder ducts at outside walls.



Perimeter loop is best warm-air heat for slab houses. 90% of entire floor is kept over 70°.

* Although these warm-air tests are now complete, full data will not be available until published by the University of Illinois early this year.

† Complete design data is given in Manual 4—"Warm Air Perimeter Heating," available (\$1) from the association, 145 Public Square, Cleveland 14, Ohio.

1953 home air-conditioning line-up

Manufacturers compete for builder market with new models unveiled at Chicago

A wave of new air-conditioning equipment was the technical highlight of the NAHB show in Chicago last month. Major trends in new air-conditioning models is convincing evidence that manufacturers are designing their products directly for the builder market. In fact, here is an outstanding example of how the building industry can team up with manufacturers to improve a product.

Shown in Chicago was a wide variety of new equipment by pioneers in the cooling field. Of equal interest to builders: a number of heating firms introduced cooling units for the first time (builders will now be offered cooling by their regular furnace suppliers). The combined output of all these firms features eight major developments in home air conditioning:

► **Units are smaller.** Compact new three-ton, year-round models (for 1,200-1,800 sq. ft. houses) fit into a 3' x 4' closet; new two-ton units need less than 8 sq. ft. of floor space. One new model is as small around as most refrigerators, includes heating and takes up only 6 sq. ft.!

► **Service is easier.** Realizing that house space is tight, several firms have designed for front servicing. No longer will repairmen have to squeeze around behind an installed unit. Builders need no longer allow extra space around them, either.

► **Heating and cooling are both in a single casing.** Several firms pack all furnace and all refrigerating apparatus in one shell. Simplified ductwork for a common connection serves for both warm and cool air. And one firm is accountable for both heating and cooling.

► . . . or mated units. Builders are also offered matched heating and cooling sections of similar height and shape designed for side-by-side installation. Though larger than single packages, these also share common duct connections, making it easy for builders to offer an optional cooling section that can be added later at minimum expense.

► . . . in a wide range of sizes and fuels. Both combination and mated types are available with two, three, or five-ton cooling capacities, with gas or oil heating in ratings of 50,000 to over 200,000 Btu's. One type uses gas the year around; cools like a powerful gas refrigerator. Another firm offers 190 models, virtually one for any size house anywhere in the country.

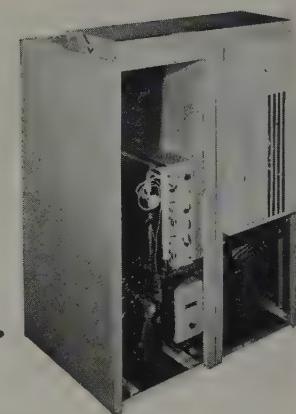
► **Nearly all have hermetically sealed compressors.** They do away with cumbersome belts and pulleys, radically reduce service costs, are so trouble-free most firms offer them with five-year warranties.

► **New water savers.** They are clear proof that manufacturers are heeding builders' pleas for an answer to the high cost of water. Chrysler's new three-ton-capacity water-saver accessory works with two automobile-type cooling radiators. An eye opener is Carrier's new, compact two-ton air-cooled condenser for installation outside up to 50' from the main unit. Not only does it eliminate water need, when the air conditioner is running it uses heat removed from a house to heat water. Domestic water, piped through a coil in the main conditioner, picks up heat normally wasted.

(Several firms also have improved cooling towers. Prices range \$150-500 depending on capacity and length of piping required.)

► **Prices are lower.** While manufacturers were reluctant to quote specific prices, many say their units will average 10-20% less than last year. (One firm has slashed its prices 25-30%.) However, they say installed costs for two to three-ton systems will range from \$800-1,200 more than the cost of forced air heating. The exact price a builder pays varies with the size of the house, amount of ductwork needed, the complexity of the installation.

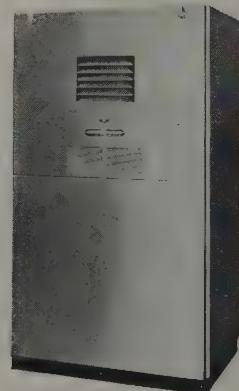
Beside the above-mentioned equipment, there were new individual cooling units, smaller than kitchen stoves, designed for tandem operation with practically any make furnace. There were also new controls. One development yet to come: prefabricated ducts to speed installation and substantially reduce cooling costs.



1.



2.



3.



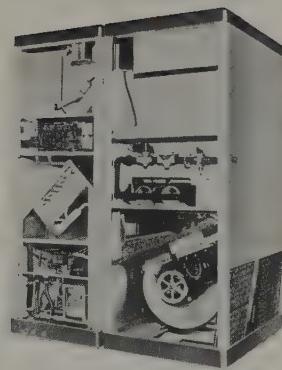
4.

1. Mated heating-cooling combination by GE offered in 190 models—2-, 3- or 5-ton cooling, 48,000 to 168,000 Btu, gas or oil heating. All models are 55" x 30 $\frac{1}{8}$ ". Width ranges from 39 $\frac{1}{4}$ " to 74 3/16", depending on output.



5.

2. Two-ton conditioner by Servel uses gas for both heating (72,000 Btu's) and cooling houses up to 1,200 sq. ft. Dimensions: 27" x 46" x 75".



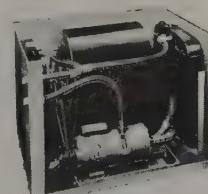
6.

3. Three-ton cooling, 90,000 Btu gas heating in 40" x 34 $\frac{1}{4}$ " x 70" package for 1,200 to 1,800 sq. ft. houses was just announced by Frigidaire. Larger five-ton version is 60 $\frac{1}{2}$ " wide.



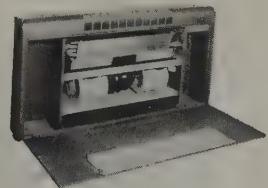
7.

4. Two-ton Carrier unit, 37" x 27" x 62" with gas or oil heat will be featured in new houses by three prefab manufacturers. Thousands of builders streamed through Gunnison model at Chicago designed by Architect Henry Hill (960 sq. ft. \$12,500 plus land, see H&H, Nov. '52). Knox Corp. will also offer cooling; American Homes plans model designed fully around air conditioning.



8.

5. Mated units provide wide variety of heating-cooling combination. Bryant twins provide two-ton cooling, 100,000 Btu heating; require only 7.2 sq. ft. of floor space, are 63" high.



10.

6. Twin 1 $\frac{1}{2}$ h. p. compressors are feature of Lennox's three-ton heating-cooling combination. On cool summer days only one compressor operates; operating costs are lower. Including gas furnace (right section), it is 52 $\frac{1}{2}$ " x 40 $\frac{1}{2}$ " x 71".



9.

7. Double-duty mated units by Coleman use either 3 $\frac{1}{2}$ " high velocity or conventional ducts; require 10.4 sq. ft. floor space, are 58" high with 2-, 3-ton cooling.

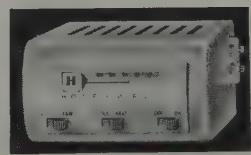
8. Automotive-type radiators, fan in middle, highlight Chrysler's new three-ton water saver (41" x 28" x 32"). Cooled water is returned to main conditioner through closed pipe circuit.

9. Individual cooling units are duct connected to any furnace. This two-ton Mueller is 28" x 23 $\frac{1}{2}$ " x 46", also comes in 3-, 5- and 7 $\frac{1}{2}$ -ton models.

10. Radiator-type conditioners take hot water for heating, chilled water for cooling. Built-in fan circulates room air through them for heating or cooling. Example: this U S Airco model is 24" or 28" high, depending on capacity required.

11. Major Innovations include automatic year-round controls such as new M-H thermostat 4 7/16" x 2 11/16" x 1 $\frac{1}{4}$ ".

A few of the units shown here were not introduced until after the Chicago Builders' Show.



11.

NEW PRODUCTS

FOR THE BATHROOM: Rub a dub dub—a 20 lb. tub

A bathtub that one man can carry as easily as a box of groceries was a show stopper at the products exhibit during the NAHB hoedown. Needing no special protection in transit or on the job, the *Strandglas* tub is a shell molded of plastic reinforced with glass fiber. A hammer or chisel dropped on its surface just bounces. The tub was originally fabricated in a small size for the trailer industry but because of homebuilders' interest in its easy handling, it is now being made in three standard sizes which sell for about 10% less than conventional units. It is not affected by temperature changes and may be cleaned with ordinary soaps or detergents. Chip resistant, the tub is pigmented all the way through. Smooth and tough, the bantam-weight bath (it takes 19 of them to equal the weight of a 380 lb. steel and enamel tub) may portend a new era in bathroom fixtures—from recessed soap trays to shower stalls.

Manufacturer: Carl A. Strand Co., Birmingham, Mich.



Made in white and pastels, the plastic tub is dressed off with a matching flat panel and a chromed metal strip.



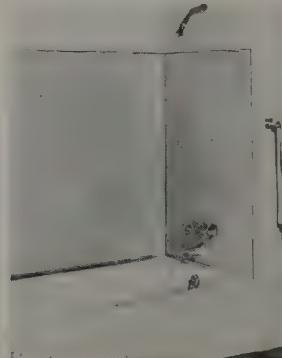
Only 2' wide, Whirlpool Corp.'s (Chicago) automatic washer (far left) has a full 8 lb. capacity. In many homes it could be placed conveniently in the bathroom. Price: \$240. Three space savers by Standard Building Products of Brooklyn are the built-in clothes hamper (\$32), folding scale (\$38 and \$47) and sliding-door cabinet (\$96 for 44" model).

Smooth ceramic tile contours, from sink top to wall, can be achieved with the radius cove by Pomona Tile of Los Angeles.



Although marketed for "do-it-yourself" home owners, precut Monowall panels (below left) for a 5' bath alcove, packaged with trim by Armstrong Cork of Lancaster, Pa., make good sense for the builder who wants to save labor on the job. A set retails for \$30.

Where the tub doubles as a shower receptacle, sliding plastic panels can serve as an attractive permanent curtain. Flat Co., Long Island City, makes the transparent pair (girl in dark towel) and L. V. Armstrong, New York, makes the translucent set (white towel).



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REVIEWS

TALIESIN DRAWINGS. Recent architecture of FRANK LLOYD WRIGHT selected from his drawings. Comments by Edgar Kaufmann Jr. (Problems of contemporary art no. 6) Wittenborn, Shultz, Inc., 38 East 57th St., New York 22, N.Y. 64 pp. 9" x 11". Illus. \$2.50

Not all great architects are marvelous draftsmen too, but most are. The ability to predict by pencil on paper the shape of an unbuilt structure, to imply not only its physical dimensions but by some magic stenography, its character—this seems to be an integral part of the great artist's visionary equipment. There are other architects whose sketching abilities are largely with slide rules, words and/or financial statements, and their respectable achievements are not to be dismissed. But the original and most important picture of the architect is the man at the drawing board.

Frank Lloyd Wright's unique drawings are an example of this. The visions are well delineated. When you first read the rich, intricate, honest drawings, and later on see the completed buildings you feel as if you have shared in the project, so intimate has been the preview.

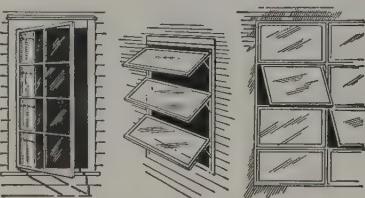
This book collects a number of drawings from Taliesin (the introduction says Wright has assisted first hand in drawing many of them, in addition to having developed and taught his recognizable drafting style). Do not expect too much from the reproductions—the intricacy of Taliesin drawings is blunted even by good mechanical reproduction, and these inexpensive reproductions are not good at all. But in it is an exciting volume nonetheless; the drawings have the truth in them.

PLASTERING SKILL AND PRACTICE. By Felicien Van Den Branden and Mark Knowles. American Technical Society, 848 58th St., Chicago 37, Ill. 298 pp. 6" x 8 1/2". Illus. and indexed. \$4.90

Through 4,000-odd years, the plasterer has maintained his position in building trades as an indispensable craftsman. Today, while divers "dry wall" materials and methods on the market are aimed at minimizing his work in construction, other products and techniques (acoustical plaster, lightweight aggregates, textured finishes) keep cropping up to elevate him, at a respectful \$30 day rate, to artisan. This comprehensive manual gives a good indication of his merit and skill. Written in a friendly, conversational manner, the text has much to offer the trained mechanic in its coverage of new materials as well as providing basic instruction for the novice. General contractors and designers also will find it helpful background reading. Excellent photographs supplement the plastering story in this contemporized guide to an age-old trade. The authors, Van Den Branden and Knowles, are plastering instructors at the Building Trades Apprentice School in Detroit.



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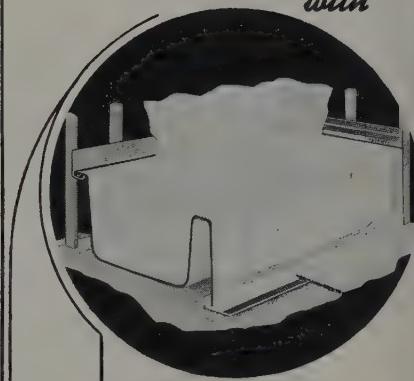
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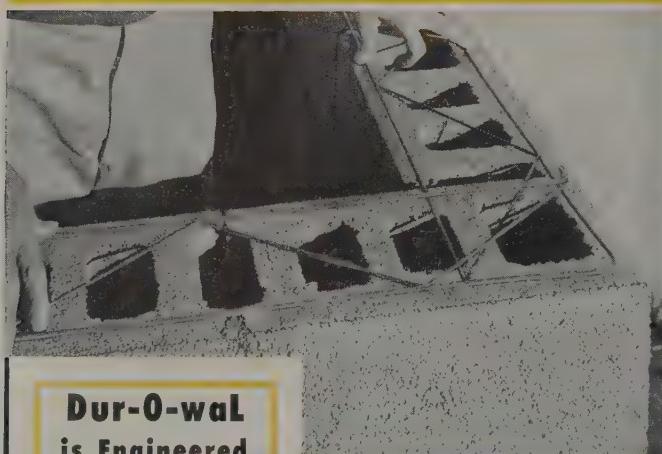
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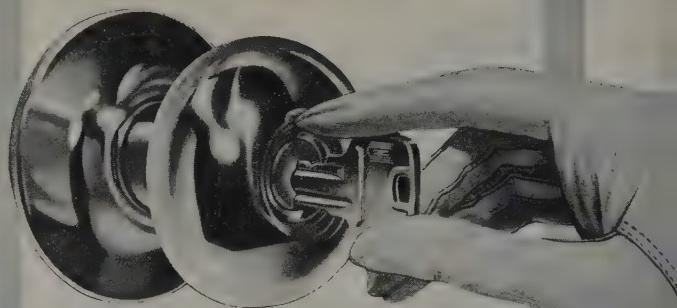
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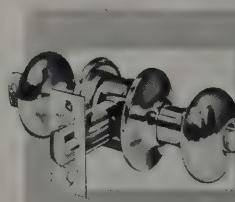
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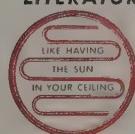
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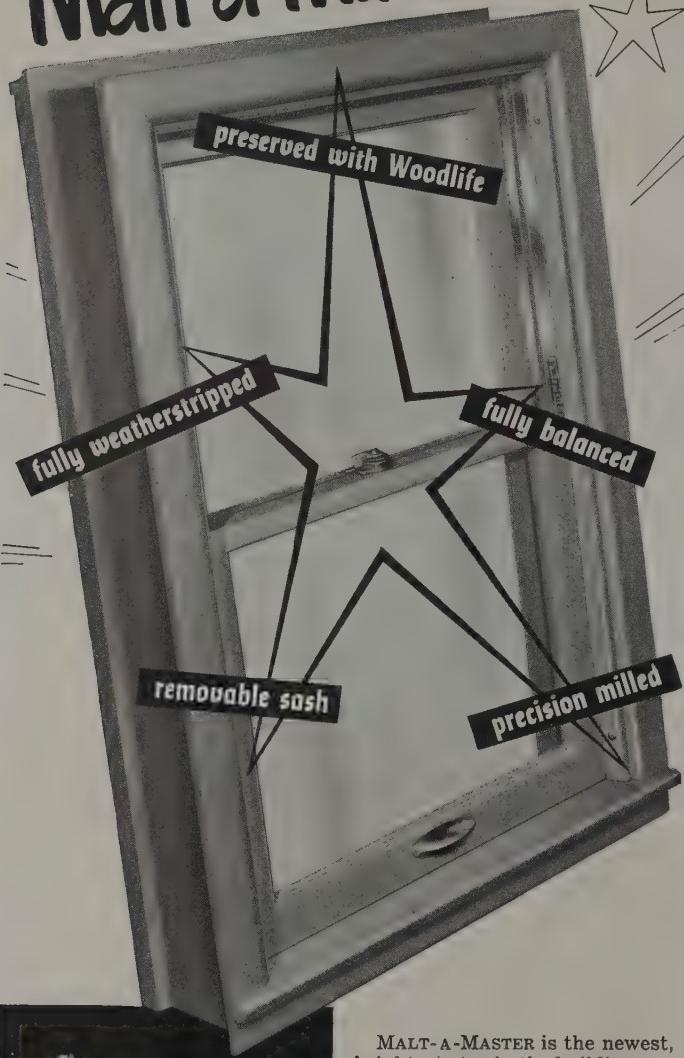
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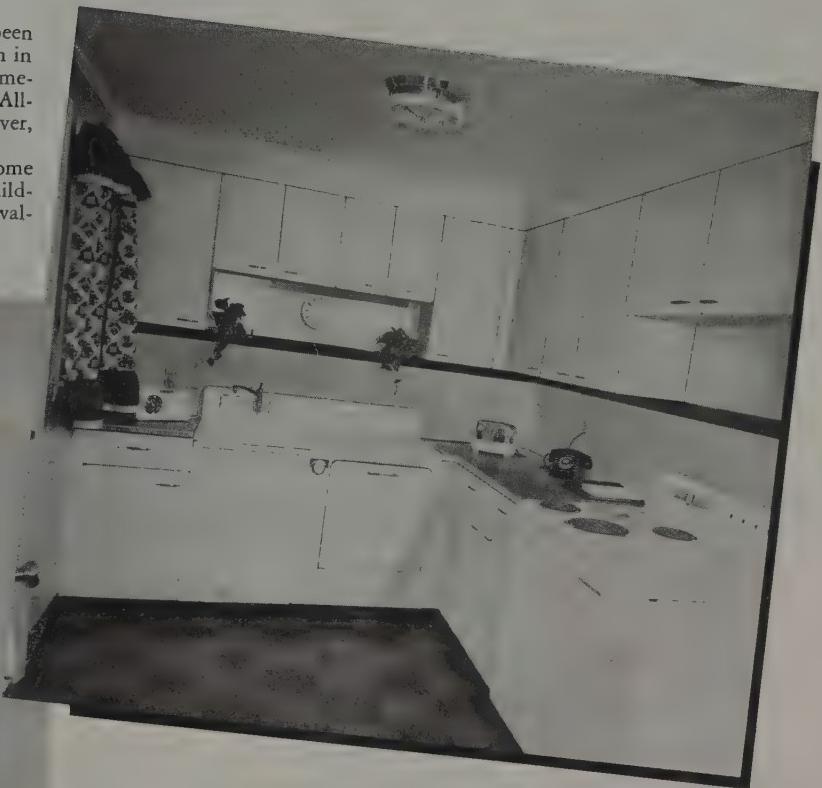
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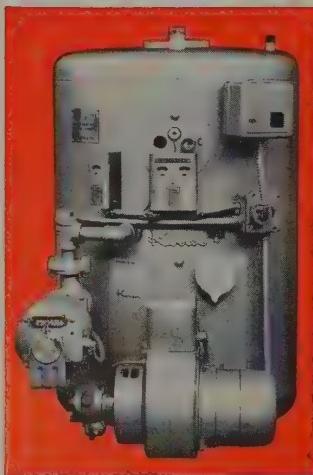
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OTHER _____



They Sell Better When They Look Better

When a prospect is looking at a house, the first thing he sees is the outside. Naturally! That's why the outside is so important—it forms the first impression that leads to the inside, and, to a sale!

Because architects, contractors and builders know this, many of them are coming more and more to color-toned Rez, as the outside finish for siding, panels, doors, fences, trellises.

Rez itself is a clear resin primer and sealer developed on the Pacific Coast 15 years ago—sold and used expensively with the development of ranch-type architecture—"growing up" with the trend to modern living and contemporary design.

Now comes color-toned Rez—a series of Nature's own tones that offers the simple, easy means of capturing colors from the desert, the seashore, the prairies, the Northwest forests. In addition, this new

color-toned Rez series becomes part of the wood due to its penetrating and sealing action. This means that wood not only retains its natural beauty but is protected for years against sun, rain, discoloration.

The 5 beautiful tones: **CEDAR REZ**—warm cedar brown, colored like sherry aged in the cask . . . **DRIFTWOOD REZ**—smoky gray, with the color of bleached driftwood . . . **REDWOOD REZ**—the rugged, ruddy color of the California redwoods . . .

MAHOGANY REZ—a rich wine red, with the deep tone of saddle leather . . . **SAGE REZ**—a soft, dry green that captures the color of desert sagebrush.

Visit your paint, hardware or lumber dealer—ask for actual "on-the-wood" color samples . . . Or write MONSANTO CHEMICAL COMPANY, Merchandising Division, 1700 South Second Street, St. Louis 4, Missouri. In Canada, Monsanto Canada Limited, Montreal, Toronto, Vancouver.

Lauz Rez Reg. U. S. Pat. Off.

LAUX
Rez
SEALER AND PRIMER
Clear Synthetic Resin
A Product of Monsanto Chemical Company

REZ
SEALER PRIMER
Clear Synthetic Resin
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MONSANTO
SERVING INDUSTRY WHICH SERVES MANKIND

NEW PRODUCTS

A New Mueller Climatrol
Fits those Low-Ceiling Basements



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- Low Installation Costs
- Pre-Wired
- Gas or Oil Convertible
- No Grouting

Mueller Climatrol

Types 116 and 216 Winter Air Conditioners

designed convertibility for Oil or Gas

**Best Buy
for Your Buyers—
Best Buy for You!**

1. Mueller Climatrol's complete line gives you a wide selection of quality products, at the price level you or your customers choose.

2. Since 1857, Mueller Climatrol Products have meant sound value, efficient service to the builder and user. Mueller Climatrol adds value to any house you build.

3. More and more builders are winning buyers' good will and recommendations by installing the best — Mueller Climatrol. More home owners, too, appreciate the designed convertibility of Mueller Climatrol. Easy and inexpensive to convert from oil to gas.

Smart-looking, compact — only 45" high, 24½" wide, for gas or oil, convertible. Delivered in two sections; easy to get down basement stairways. Solid steel base — no grouting, no concrete base necessary. Assembled and pre-wired to reduce installation time. Available in four sizes — 90,000 to 150,000 Btu input.

**for any size house, any type of system
— your best buy is Mueller Climatrol**

The Mueller Climatrol line is really complete — counterflows, highboys, attic furnaces, boilers, small pipe and cooling systems. No matter what your heating or cooling problem is, call your Mueller Climatrol dealer — to give greater owner satisfaction and cut your costs.

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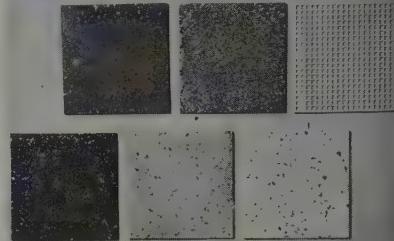


Mueller Climatrol

B-71

WAFFLE-BACK FLOOR TILE stays put without adhesives

Suitable for use wherever conventional floor coverings are practical and many places where they are not, Robbins new Terra Tile may be the answer to a multitude of flooring problems. Resistant to grease and alkali, the new vinyl tile is installed directly over con-



crete or wood subfloor without adhesives or special treatment of the surface. It may even be laid below grade where excessive moisture is present. Pockets in its honeycombed back are said to exert a suction effect that helps hold the tiles in place, prevents moisture seepage between joints, and traps air for effective thermal insulation. Twice as thick as regular solid tile, Terra Tile has ten times the bounce. The vinyl plastic's dimensional stability makes the adhesiveless setting pos-



A row of tiles is cut to conform to the wall, and the rest just placed snugly together.



sible. Slight compression holds the tiles firmly in place and the finished floor will not bend or buckle. Terra Tile is not cheap. But at 75¢ per sq. ft. it is worth its weight in vinyl since it needs little maintenance and will serve a lifetime. It is available in 16 attractive color blends.

Manufacturer: Robbins Floor Products, Inc., Tuscumbia (Muscle Shoals), Ala.

continued on p. 160

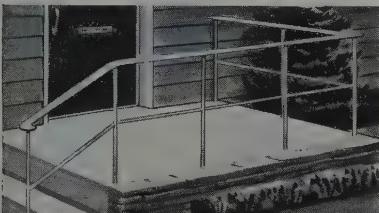
Architectural Service

Modern Base Mouldings



For genuinely easy maintenance, aluminum base mouldings are the logical specification. They harmonize with any color scheme and need no painting. Extruded aluminum base mouldings—like aluminum door jambs, thresholds, and hardware—give builders another opportunity to effectively tie in all trim with modern aluminum windows. And thin wall, extruded aluminum trim sections are easily worked with standard carpenter tools.

Attractive Exterior Railings

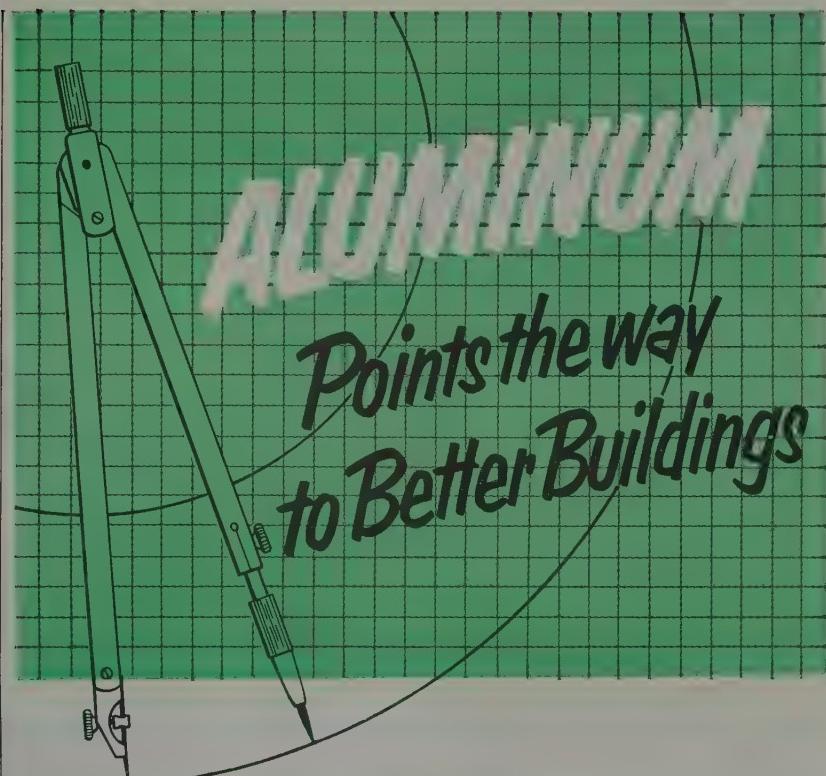


Aluminum exterior railings complement designers' skill in modern dwellings. The rich, quiet tones of aluminum assure an attractive appearance . . . harmonize with any type construction or trim. The rust-proof, non-staining and durability features of aluminum assure freedom from maintenance trouble and expense. These important savings in maintenance plus aluminum's many other advantages, more than offset the slight extra material cost—actually a minor factor in the finished job when material and labor costs are compared.

Window Sills and Stools



Durable aluminum extrusions are the modern answer to the home-builders demand for the finest in window trim. Aluminum sills and stools are designed to take hard wear and eliminate maintenance, rust, and rotting problems. With an initial, lifelong finish, aluminum window trim stays bright and new-looking after years and years of service. Window sills and stools made from extruded Reynolds Aluminum fit right in with the many types of modern aluminum windows.



Put Reynolds Architectural Service to Work on Your Designs

Aluminum, the modern metal, points the way to better buildings at lower cost. That's why so many standard aluminum products such as

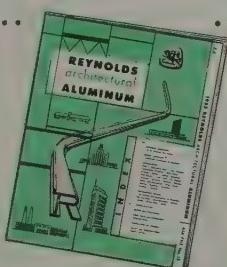
the various types of windows, sills, thresholds and hardware are consistently specified by architects and used by builders. And Reynolds Aluminum extruded shapes and tubing, structurals, sheet and other mill products point the way to better building through unlimited design flexibility, wide range of finishes, light weight, great strength, resistance to rust and corrosion and low cost. Remember—aluminum is the only mass-produced metal that costs no more today than before World War II.

To give you the most from aluminum, Reynolds Architectural Service is available through all architects for the asking. It's a specialized service set up to answer aluminum design and construction questions and to help contractors build better, build faster with aluminum.

For complete information call the Reynolds office listed under "Aluminum" in your classified telephone directory or write direct.

NEW FREE CATALOG!

Send for your free copy of the new 1953 catalog on Reynolds Architectural Aluminum. Helpful 3-color presentation of the architectural aluminum available and the advantages for each purpose. Covers design and fabrication, lists various types of finishes, shows applications and installation details. Gives alloys most commonly used, etc., plus a complete list of helpful technical literature. Send your request to Reynolds Metals Company, 2529 South Third Street, Louisville 1, Kentucky.



REYNOLDS ALUMINUM

MODERN DESIGN HAS ALUMINUM IN MIND



William Brockway residence, Los Angeles, Calif. Burton Schutt, architect. Reprint, Sunset Magazine. H. H. Baskerville, Jr., photographer.

A wall of diffused light transforms a utilitarian stair landing into a point of high interest in this lovely home. Translucent Mississippi Luxlite glass floods the area with light and creates an atmosphere of spaciousness and beauty. Yet this lovely obscure glass by Mississippi protects privacy completely.

Daylight can be a vibrant, interesting part of any decorating scheme. The addition of translucent glass in well-chosen locations in home and office can add charm and distinction . . . help create a modern, exciting mood.

Specify figured Mississippi Glass. Available in a wide variety of beautiful and unusual patterns wherever quality glass is sold.

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S ARCHITECTURAL FILE**
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Write today for your free booklet, "Modernize Your Home With Decorative Glass." Photographs of actual installations. Many ideas on ways to use this versatile medium.



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WORLD'S LARGEST MANUFACTURER OF ROLLED, FIGURED AND WIRED GLASS



When you build

Build for added saleability and greater owner-satisfaction by designing shower cabinets into your homes. A shower is always wanted in the master bath room or guest room. In the basement or on the first floor off the utility room, an extra bath for "clean-up" purposes after gardening spells luxurious living to the prospective home-owner.

When you remodel

Remember, you can often turn a closet or other little-used space into a bathroom, in combination with a lavatory or toilet or both. The modest space requirements of shower cabinets make this possible.

Wide choice of types

Prefabricated shower cabinets are available in a wide range of sizes, designs, colors and prices. They come ready for quick, easy installation by the plumber and require neither reinforcement nor special preparation of room floors or walls. They are entirely independent, self-contained units, unaffected by building shrinkage or settling.

Built to last

Manufacturers use a special lifetime porcelain enamel on Armco Enameling Iron for shower cabinet receptors (bases). Walls are of porcelain enamel or of Armco ZINCGRIP PAINT-GRIP, a zinc-coated sheet Bonderized to preserve the baked-on finish.

You'll find it worth while to know about packaged showers. Just drop us a card saying, "Send me data on shower cabinets."

ARMCO STEEL CORPORATION

1483 Curtis Street, Middletown, Ohio • Plants and Sales Offices
from Coast to Coast • Export: The Armco International Corp.

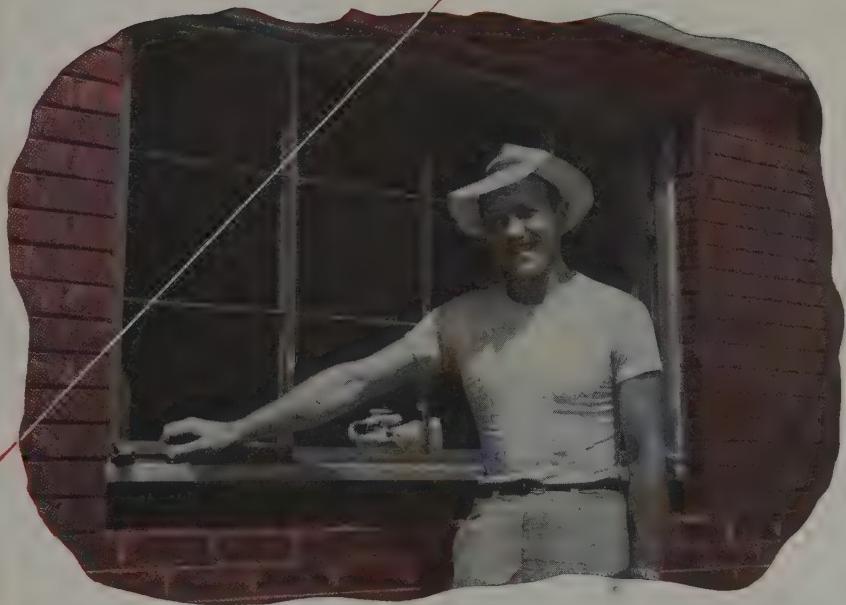




"Steel windows are my choice every time—for two reasons,"

—says Charles S. Bennett,
PRESIDENT, PLEASANT PARK HOMES, INC., JEANETTE, PA.

HERE, as illustrated in these two pictures, a Bennett workman shows how easy it is for one man to install and nail in place a complete steel window in about three minutes.



CHARLES S. BANNETT, PRESIDENT, stands beside a finished window in one of his attractive Pleasant Park Homes.

"Yes, I've got two good reasons for installing steel windows in these houses," explains Mr. Bennett. "First, they make my own work easier... and they please home buyers more than any other type of window."

WITH steel casement windows I get a much better window . . . at lower cost . . . with less time spent on installation than with older, conventional window construction. Because the window comes as a complete unit—without any extra sills, trim or other accessories—it's easy for my workmen to make a neat finished job in about three minutes. And there's no special opening construction necessary either. Steel casements go right in the simplest rough opening . . . and their outside trim makes a fine stop to

butt brick, frame or stucco against.

"Prospective customers tell me that they like steel windows best because they're so easy to open and close . . . have slender, graceful lines that look good from the inside or the outside of the house . . . are weather-tight . . . make ventilation easy to regulate . . . can be easily cleaned on both sides from inside the house . . . and are inexpensive to maintain.

"With all these outstanding advantages on the side of steel windows, I'm certainly

going to install them in every house I build."

This progressive young builder is typical of many who—during the last two decades—have come to realize the advantages of steel windows for homes and buildings of all types and sizes.

* * *

For more than 40 years United States Steel has been supplying window manufacturers with special rolled section high-grade open-hearth steel.

UNITED STATES STEEL CORPORATION, PITTSBURGH • COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO
TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA. • UNITED STATES STEEL EXPORT COMPANY, NEW YORK

U·S·S STEEL FOR WINDOWS

Not only the builder—but also the architect, the realtor, and the mortgage holder have good reasons for liking steel windows for all sorts of modern, up-to-date homes. Steel windows are compatible with any style home. They add to its value, reduce upkeep time and maintenance expense, and please more prospective home buyers than any other window construction.

Look for this label—it is your assurance that the windows are made from quality steel.



3-03-A

UNITED STATES STEEL

Build better HOUSES

Keep them priced to move



PREFABRICATION will help you do it!

Today more than ever, as costs squeeze both builder and buyer, Prefabrication deserves your attention. Through the economies and efficiency of Prefabrication you can do three things: deliver your customer a better house, sell it to him at a price that gives him more for his money, protect yourself on your

own profit. Get the facts about today's big swing to Prefabrication. Write for the free book, "Build Better, Build Sooner."

- ✓ START SOONER!
- ✓ COMPLETE QUICKER!
- ✓ SELL FASTER!



**PREFABRICATED HOME
MANUFACTURERS' INSTITUTE**
936 20th St. N.W. • Washington 6, D.C.

SOFT-WATER SERVICE available for new developments

Almost 85% of the country suffers from the annoyance and wastefulness of hard water (see map). Now, for just \$4 a house,



builder can make provisions for piping filtered soft water to bathroom, washing machine and kitchen. Actually, the cost of incorporating the piping is \$8 but Culligan has worked out an agreement with its local soft water service dealers to absorb half the cost. Home purchasers can take the soap-saving service (for about \$2.75 a month) or leave it. In a 100-home, FHA-approved Colorado project (homes selling for \$8,400 to \$10,200) everyone took it. (Like telephones, the water-softener tanks are "on loan," not sold.) A 228-unit development under construction at Rapid City, S. D., is also incorporating plumbing lines for the service.

Manufacturer: Culligan Zeolite Co., Walter Ave., Northbrook, Ill.

WAFER-THIN HEATING PANEL sticks to ceiling with glue; has little heat lag

For ideal response to heating needs, a radiant panel should be as thin as a bedsheet. US Rubber's *Uskon* type T panel comes



pretty close. Only 1/16" thick, the new electric heating unit is practically bulkless. On signal from a thermostat it warms up in

continued on p. 16

IN SELLING NEW AND OLD HOMES

the Preference is for OAK FLOORING

SAY REAL ESTATE AGENTS



96%

of the real estate agents in large and small cities who were interviewed in a recent national survey, said they would rather sell homes that have oak floors. Their overwhelming preference was based on fact: homes having floors of oak are easier to sell.

To the architect who is interested in the saleability of his home designs, this preference is significant. Architects themselves, in this same study, indicated an 80% preference for oak flooring.

It is this preference—and that of contractors, and home-

owners, too—that gives oak its big exclusive—the 4th Dimension.

And now, with FHA-approved methods of laying oak over concrete, architects are able to provide consumer-preferred beauty and durability in minimum budget homes. (Send to NOFMA for FHA-approved specifications for laying oak over concrete.)

For home designs of the future, for large and small building budgets, there is no flooring that provides the beauty, the adaptability, and the durability of the floor with the overwhelming precedence—oak. National Oak Flooring Manufacturers' Association, Sterick Building, Memphis 3, Tennessee.

96%



Overwhelming Preference...OAK'S 4th Dimension

- ARCHITECTS 80%
- CONTRACTORS 88%

- REAL ESTATE AGENTS 96%
- FUTURE HOME OWNERS 83%

MORE LIVING SPACE

Compact designs, 22" x 22" and up, top flue outlets, front accessibility to all parts, close clearances — mean more living space in smaller homes.

YEAR 'ROUND COMFORT

Soon year 'round airconditioning will be available in a smart Ranchief "4-Seasons" unit—compact, beautiful, efficient.

rolling door hardware that breathes ...



Breathing space shown by arrows allows WASHINGTON wheels to ride over the years of dust and dirt accumulating in any track.

A bumpy track may be all right for a freight train, but not in a lady's wardrobe.

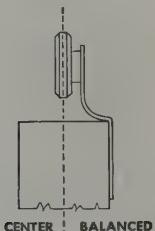
Better use WASHINGTON.



WASHINGTON LINE

Three types of bearings available.
Ask your dealer for more information or write to:

WASHINGTON STEEL PRODUCTS, INC.
Dept. HH-2, 1940 East 11th Street, Tacoma 2, Washington



GREATER BEAUTY

Gleaming white baked enamel finish, streamlined design, match the smart, clean beauty of other utility room appliances.

DEPENDABILITY

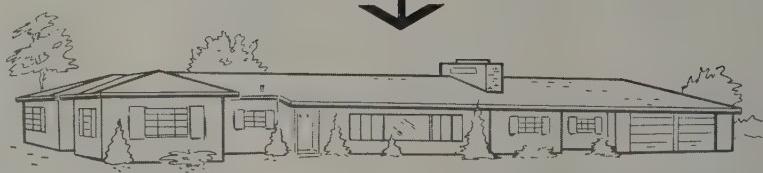
Finest quality in the merchant built price range assures trouble-free performance, fuel economy, complete satisfaction for your home buyers.

FAST INSTALLATION

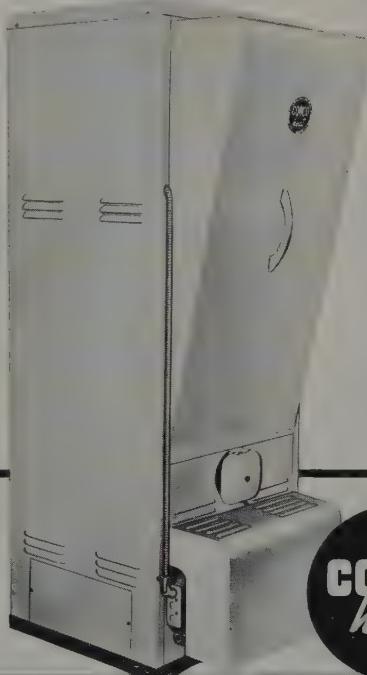
Factory assembled, factory wired, fire-tested, for quick installation, meeting today's high speed, streamlined erection schedules.

SALABILITY

The compactness, the quality "look" of Conco-Ranchiefs helps sell your homes.

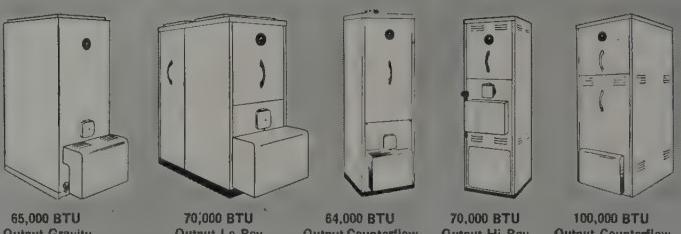


keeping pace with today's
home
design



There's a Conco Ranchief for every size home, every home design — slab floor, crawl space, basement — perimeter and conventional heating, ideal for small pipe installation. Write for complete information.

New 70,000 BTU output
Counterflow features over-size blower for perimeter systems with long duct runs.



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eye appeal means extra buy appeal



...when you use *Quality-Approved*

ALUMINUM WINDOWS

DOUBLE-HUNG

CASEMENT

PROJECTED

AWNING

Now Available!

Attract the eye and you attract a sale—that's what happens when you build with "Quality-Approved" aluminum windows.

Aluminum windows bearing the "Quality-Approved" seal tell your customers, "Here's quality that's really built-in!" For you that means extra sales appeal is built in, too!

What's more, under present CPM regulations most manufacturers are ready to supply residential aluminum windows (double-hung, casement or projected) from stock.

When you buy, insist on aluminum windows that bear the "Quality-Approved" seal. It's your assurance (and your customers', too) that you are getting all the advantages of strong sturdy windows, well-designed and carefully manufactured.

Build for lasting good looks, low maintenance, service-free operation. Build with "Quality-Approved" aluminum windows and give your houses the "Quality-Look" that means faster sales.

For further information see Sweet's Builders' File (Section 3d/Alu or write us direct. Address Dept. HH-2.

*Aluminum Window
Manufacturers Association*

74 Trinity Place, New York 6, N. Y.



A.W.M.A. Quality Specifications—Materials, Construction, Strength of sections and Air infiltration requirements—confirmed by PITTSBURGH TESTING LABORATORY.
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Two Good Reasons You'll Build BETTER KITCHENS WITH ELKAY...



For Smart Appeal and Permanence include ELKAY Lustertone, the only sink guaranteed to outlast the home in which it's installed. The sterling beauty of Lustertone is an unmistakable mark of quality that reflects confidence in the builder—inspires a buying urge in every prospect. Find out about the new low prices on Lustertone stainless steel sinks—see just why it's an investment in sales appeal and permanent satisfaction you can't afford to leave out of your plans.

For Color—Convenience—Economy you can count on ELKAY Duratone, the all-new sink and cabinet top that combines colorful *beauty bonded* FORMICA with a permanent, rustproofed steel core. Custom-built in any size and shape—furnished with or without famous Lustertone sink bowls, or finished to combine with any sink. For the first time ELKAY brings you the economies of a factory-fabricated *Formica on steel* top with a guaranteed bond. Design better kitchens with Duratone.



Duratone tops are guaranteed and will be made up in any size to fit any plan—with or without sink bowls. Priced competitively yet built for superiority. Public acceptance of the ELKAY name, together with consumer advertising support, brings you another pre-sold product.

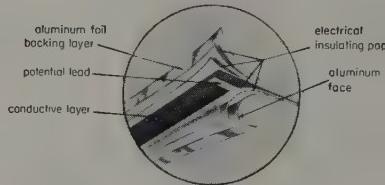
Write for literature and prices on both lines.

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1898 S. 54th Avenue • Chicago 50, Illinois
The World's Oldest and Largest Manufacturer
of Stainless Steel Sinks



stantly, and when necessary cools off just fast. While its surface temperature runs 1 to 110° F. (baby bath water), the heat rays it emits are comfortable to room occupants. The type T consists of a sheet of "conducting rubber"—rubber threads saturated with c



bon black—sandwiched between layers of plastic and aluminum foil. Weighing 6 per sq. ft., the panel is secured to ceiling (or wall) with a few brush strokes of adhesive. Connections from the house wiring are run through a metal channel which doub



as ceiling molding. Besides freeing floor space otherwise devoted to radiators, fans and furnace, an Uskon system is relatively inexpensive. One 4' x 6' panel can be installed, with thermostat, for about \$40; additional sections for \$35 each. Panels 4' x 4' and 3' x 4' are also available. (The number of units required depends on the climate, house insulation, but generally it is not necessary to cover an entire ceiling.) Of course, the millennium in operational costs for electric heating is not yet upon us. Only areas where there is a 1½¢ kw. hr. rate can Uskon compete with gas or oil heat. The new panels are adaptable almost anywhere, however, for supplementary quick heating in bathrooms, nurseries or expansion attics. *Manufacturer:* US Rubber Co., 30 Rockefeller Plaza, New York 20, N. Y.

COLD PANTRY. General Electric crystallizes phantasmagoria—for showroom only. Some builders who had the energy to brave the cavernous Merchandise Mart during the

continued on p. 1

LOOK! COMPARE!

See why

American Kitchens

7 Star Features Sell Homes Faster!



COMPARE! 7 STAR FEATURES

- ★ Easy to clean—smooth surfaces with no dirt-catching handles
- ★ One piece tops of lifetime vinyl—no seams to catch dirt
- ★ Giant storage space
- ★ American Kitchens Roto-Tray Dishwasher, work-saving
- ★ Handy pantry—uses every inch of corner space
- ★ Rounded, one piece drawers clean as easily as a bowl
- ★ Convenience features—like the step-saving exclusive Serv-Cart

Smart builders know convenience features will do more to sell a house than all the superior grade cement and lumber in the world!

They have learned to start with the kitchen—to make it a center of convenience and attraction that will kindle the "let's buy it, dear" light in a woman's eyes. That's why they prefer American Kitchens, built with all the features a woman wants!

**INCLUDE THE ROTO-TRAY DISHWASHER
the one appliance proved to sell houses faster!**

Here's real house-selling magic—the sensational new American Kitchens Roto-Tray Dishwasher, really work-free, that does dishes 3 times cleaner than by hand. See how it and American Kitchens can sell your houses faster!

**American
KITCHENS**

"SAVE 1000 STEPS A DAY"

American Kitchens, Dept. HH-2
AVCO Manufacturing Corp.
Connersville, Ind.
Please send me information
about American Kitchens
builders' discount and your
new Architects and Builders
file.

Name _____
Address _____
City _____ Zone _____ State _____

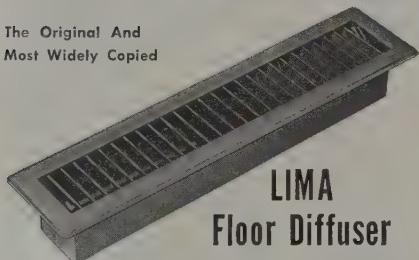
Gunnison Homes use American Kitchens

AMERICAN KITCHENS DIVISION  CONNERSVILLE, INDIANA

for top efficiency
in Perimeter Heating
specify

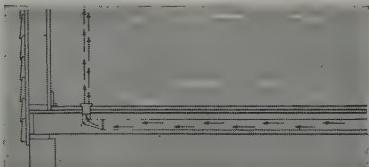


The Original And
Most Widely Copied



LIMA
Floor Diffuser

First and still the finest floor diffuser for proper air distribution. The 2" x 14" size, with its reasonably high velocity diffusion, is particularly recommended for all types of perimeter heating. Sizes include 2" x 14", 4" x 10", 4" x 12" and 4" x 14".



Air diffusion pattern shows how the Lima 2" x 14" Floor Diffuser stops cold air at outer wall with strong, fan-shaped curtain of warm air . . . pulls air from within room toward outer wall . . . sets up proper air circulation without drafts.



Side view showing correct 70° upward angle from floor. Notice the 20-22° angle away from wall which eliminates smudges.



Front view shows Lima "45" Wall Diffuser air pattern starting at 45° from floor and extending over 90° spread.

Specify Lima Wall-O-Way Stackhead and Frame in combination with the Lima "45" Wall Diffuser for simplified out-of-the-wall installations in old house and solid wall construction.

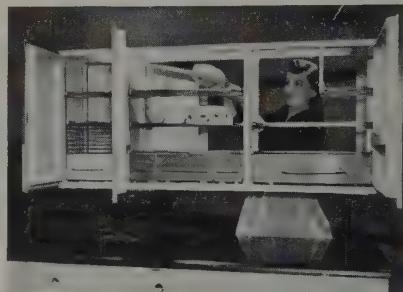
Sold Exclusively Thru Heating Wholesalers and Mfrs.



Register Company
World's Finest Diffuser and Register Plant
LIMA, OHIO

WRITE FOR COMPLETE DESCRIPTIVE LITERATURE

NEW PRODUCTS *continued*



convention last month got a good look at what tomorrow's refrigerator might be like, and an inkling of the way they would have to build around it. Accessible from front and back, GE's experimental XR-10 could serve as a useful buffer between cooking and dining areas in an open plan. The horizontal unit has a capacity of 10 cu. ft. but takes up half the space of a conventional model because of unique "thin wall" insulation. Finger grips are used to open its six doors; magnets hold them shut.

Developer: General Electric Co., Major Appliance Div., Louisville 2, Ky.

GAS RANGE harbors dishwasher-on-wheels

Scheduled for sale this spring is Cribben and Sexton's development of its own *Wheel-about Universal* gas range (see H&H, Jan. '52). The mobile cart, designed to nest inside the range, now contains an automatic dishwasher that requires no special wiring or plumbing. Plugged into any wall outlet, the portable dishwashing unit utilizes hosed-in tap water, regulating its temperature and pressure for efficient washing action. Retail price for the appliance-within-an-appliance will be about \$550.

Manufacturer: Cribben and Sexton Co., 69 W. Washington St., Chicago 2, Ill.



continued on p. 172

BIANCO

Kitchen Hostess
READY BUILT
NOOKS

MANY STYLES AND EVERY
SIZE TO MEET ALL NEEDS
AT VERY LOW COST



READY BUILT available for easy, quick installation. Solves the "problem" kitchen. Helps create a modern, desirable, work-saver kitchen. Provides dining area yet makes average kitchen look larger.



LOW COST . . . Kitchen Hostess Nooks actually often cost no more than tiling and flooring work you eliminate. They add smartness, utility and extra eye appeal to home. Speed sales.



BIANCO BUILT rigid, hardwood frames. Heavy layer of rubberized hair upholstered over Na-Sag springs on seat and back. Duran plastic in your color scheme. Durable, stainproof plastic table top. Triple-chrome-coated base.

NEW CATALOG JUST OUT. Write for it on your business letterhead. Learn how you can add value and sales appeal to homes without burdensome cost.

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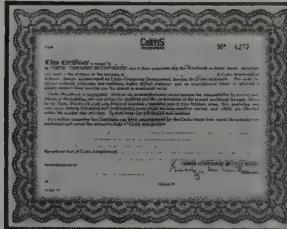
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2740 Victor Street
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now value takes the spotlight

Today, perhaps more than ever before, home owners are value-conscious. They want to know what they are getting—respond quickly to product names which are "old friends."

Here Curtis Silentite Windows are a definite help. These wood windows put real meaning into that over-worked word "quality."

They are precision-built, pre-fit and pre-assembled units for quick, economical installation. Materials and workmanship are **guaranteed**. Silentite weather-tightness and easy operation are attested by millions of installations. And the name "Curtis"... known for 87 years—has become almost a household word in fine woodwork.



Curtis makes picture windows in a variety of sizes. Here, a picture window is flanked by the famous Curtis Silentite double hung units with their exclusive "floating" weather-strips, which lower heating costs.



► The new Curtis panel windows offer a highly flexible means of providing for any desired number of window openings. Simple, yet rugged in construction, they are available for standard Thermopane or Twindow glazing. Ventilating units and louvres are furnished when desired.



Curtis Silentite wood casements are known as the most weather-tight casements made today. They come in several sash styles and sizes. Their patented operating mechanism provides easy operation—locks casements in any open position.

Curtis makes every practical type of window for every style of home. Complete information is yours for the asking—mail the coupon.



Curtis Companies Service Bureau, MB2 Curtis Building
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Please send me booklet on the Curtis line of Silentite Windows.

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Address.....

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Curtis offers a complete line of architectural woodwork and kitchen cabinets for homes of all types and sizes. Make your next home "all Curtis."



*Bathroom
Beauty
by NATCCO of course!*

Model 1102FL
Illustrated

There's a reason why National Steel Cabinets are leaders. Architects and home builders know they are getting quality at a reasonable cost and each cabinet model has individual features that make it attractive for any home—whether it is the beautiful Ambassador Model 1000—or the Budgeteer Model 400.

NATCCO gives you these features



Model 1102



Model 802

- ★ Exclusive seamless and one piece deep drawn bodies.
- ★ All cabinets are completely rust-proof treated before enameling for long life.
- ★ All lighted models have an inside night light.
- ★ Tooth brush recess.
- ★ Adjustable bulb edge shelves.

Many other features make the NATCCO Cabinets the leader.

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All mirrors are of "A" Quality Glass—and are unconditionally guaranteed against spoilage for five years.

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Most models are IMMEDIATELY AVAILABLE in every major city

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CHICAGO 39, ILL.

*you know the Western Pines**
in rooms like this



*now meet Sugar Pine
in weather-resistant exteriors!*



WINTER SNOW OR SUMMER SUN won't harm this mountain home's rugged Sugar Pine siding! Weather-resistant, easy-to-work Sugar Pine proves perfect for doors, windows, stairs, paneling and architectural woodwork, too. Its subdued grain looks beautiful stained or varnished. Paints and enamels cling firmly to the smooth, even-textured surface.



*THESE ARE THE WESTERN PINES

SUGAR PINE

IDAHO WHITE PINE • PONDEROSA PINE

THESE ARE THE ASSOCIATED WOODS

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All are well manufactured, seasoned, and graded to the high Association standards. You can specify and buy them with confidence!

For information on any of the Woods of the Western Pine Region, write

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Heat... CLEAN, COMFORTABLE, CONSTANT, LOW COST

Radiant Heat

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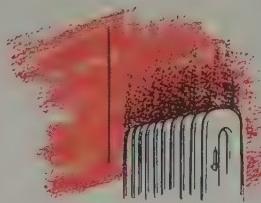
Radiantweld STEEL TUBING



YOUR HOME

LIKE A BREATH OF SPRING

Enter a radiant heated home for the first time . . . you're amazed at the delightful, spring-like, clean 'feel' . . . the fresh, sparkling, welcoming warmth and comfort in every room. No hot and cold spots—no drafty discomfort—no dry, harsh atmosphere where only a cactus could live. Radiant heat is always like a breath of spring—in winter's coldest months.



NO MORE DIRTY HEAT STREAKS

Ever wonder why walls, curtains, wood-work and ceilings were spotted and dirty near radiators or registers? The rapid flow of air induced by heat (convective air currents) draws dust and dirt from every portion of a room and bombards adjacent surfaces with these dust particles to cause unsightly heat streaks. Radiant heat creates no extreme air flow—hence eliminates the need for constant cleaning—costly redecorating.

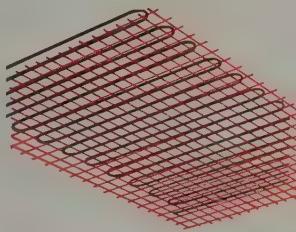
CONSTANT, COMFORTABLE, NATURAL WARMTH

Just as the earth radiates heat from the sun, so the steel tubing panels in floors, walls or ceilings provide a constant, unvarying, temperate heat with larger zones of comfort to serve every occupant of the home. No scorched or baked air—no dust and dirt—no chilly drafts. Radiant heating offers a natural, equitable, constant source of economical temperature control.



LOWER COST INSTALLATION AND UPKEEP ADVANTAGES

Radiant Heat units usually cost less to install than other accepted methods of home heating. A smaller hot water heater coupled with present day advances in installing the completely enclosed system of serpentine steel tubing coils provides many cost cutting advantages. Definite fuel savings result with a greater factor of efficiency to reduce heating bills.



Radiantweld STEEL TUBING BETTER SERVES THE OWNER, THE ARCHITECT, BUILDER AND CONTRACTOR

1 NOW AVAILABLE IN EXTRA LONG COILS

Avon, recognizing the need for a specially designed solid wall steel tubing for home and small industrial plant installations developed Radiantweld. Among the prime requisites was a perfectly processed tubing in lengths sufficiently long (225 ft. in $\frac{1}{2}$ " dia., 160 ft. in $\frac{3}{8}$ " dia.) to insure economical handling, elimination of multiple joining, reduction of soldering, the hazards of leaking joints.

2 SPECIALLY ANNEALED FOR DUCTILITY

Solid wall steel tubing for radiant heat installations must have extreme softness or ductility to take all types of bends without cracking, checking or tearing. Avon has accomplished this by installing a new type of equipment to specially process and anneal its fusionweld steel tubing which can be quickly and efficiently formed by one man hand bending from continuous coils.

3 HIGHER TENSILE STRENGTH

Avon Radiantweld has the physical properties to stand up to the roughest handling and abuse without distortion. Its toughness or tensile strength is very high, while the uniform grain structure of the fusionweld and surrounding wall area insures consistent uniformity of wall strength to withstand abnormal shock and forming.

4 PRESSURE-PROOFED FEATURES

Radiantweld combines ductility to insure easy bending qualities with extreme tensile strength to eliminate any possibility of distortion, tearing, checking or cracking. Its uniform grain structure throughout the entire tubing wall also assures essential leak-proof advantages. Every foot of Radiantweld is pressure tested (2500 p. s. i.) to insure permanence, performance and life-time operation.

5 LIFE-TIME PERFORMANCE ADVANTAGES

The superiority of Avon Radiantweld is attested by many comparative tests resulting in its adoption and use by America's largest builders of mass produced homes. Millions of feet of Avon Radiantweld are now being specified for these and similar installations in homes, small plants and modern offices.

6 FORMED BY THE FAMOUS FUSIONWELD PROCESS

Avon pioneered in the development of special fusion welding equipment to form, weld and anneal its now famous Fusionweld solid wall steel tubing. This tubing is used in the automotive, electric refrigeration, radio, hydraulic machinery industries and for many other rigidly controlled applications. Using this exclusive Fusionweld process, Avon has gone a step further—developing new equipment for additional annealing operations to better serve the specialized needs of Radiant Heat installations exclusively.

MAY WE SUPPLY YOU WITH DETAILED INFORMATION?

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ROCHESTER, MICHIGAN

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YOU want...

DESIGN FLEXIBILITY
EASE OF CONSTRUCTION
GUARANTEED PERFORMANCE
YEARS OF SERVICE

into these

BENNETT fireplace dampers

Bennett fireplace engineers . . . specialists in fireplace design for over 25 years . . . have built into these Bennett throat dampers *dozens* of proven performance and construction features. Whether you're planning a conventional, single opening fireplace, or one of the "unusual" arrangements so popular today—you'll find it easier to design, easier to build with a Bennett Damper!



Expanslip Steel Damper

The famous boiler plate steel damper with the exclusive slip-joint feature, which takes up expansion that occurs when damper gets hot. 60° front slope gives sure draft. 8 sizes—up to 72" wide, designed for easy lay-up of brickwork.



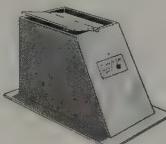
Cast Iron Dampers

Improved, higher-front design assures better draft, better smoke passage. Sturdy cast iron construction, with either cast iron or steel valve. Precision-cast in our modern foundry, Bennett cast iron dampers have no thin spots or weak sections to give trouble. Wide range of sizes.

Beneform®

Universal Damper

The amazing new damper that gives you *absolute* freedom of design expression—at *moderate* cost. Builds any one of six basic fireplace styles including projecting corners, three-sided openings, etc.

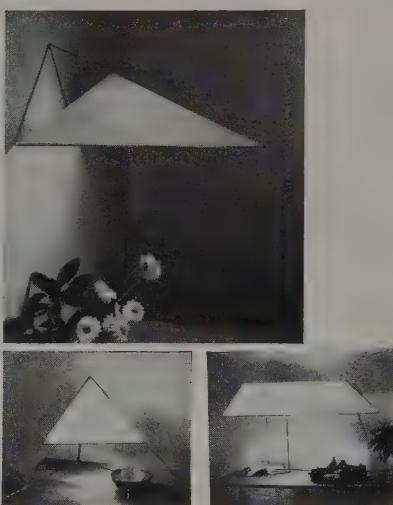


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NORWICH, NEW YORK

NEW PRODUCTS *continued*



HARVEY'S LAMPS: soft light from simple shapes

Purist designers who bemoan pedestalized light bulbs may find solace in Jason Harvey's new group of lights for light's sake. The seven subtle fixtures—two for wall placement and five for table level—have neat, angular shades of translucent plastic covered with parchment. Slim steel stems frame the light source. Price for the wall model pictured (top) is \$37.50; the table lamp (left) is \$37.50 and the lamp (right) \$64.

Manufacturer: Jason Harvey, 436 E. 85th St., New York 28, N. Y.

SARFATTI'S LAMPS: functional light from fey forms

These three lights by Sarfatti are in the Italian designer's usual festive vein. The floor lamp has a simple ring that adjusts the height of the pert swivel shade. Priced at \$63 retail, the fixture comes apart at the joint for use as a hanging wall lamp. The metal mushroom sprouts, each enameled a different color, are sprightly table lamps. Designed to glow rather than glimmer, they take low-watt bulbs. The little threesome is \$31.50; the thicker growth, \$58.75.

Importer: Knoll Associates, 575 Madison Ave., New York 22, N. Y.



Technical Publications 176

METAL WEATHERSTRIPPED WINDOWS show infiltration ratio 6 TIMES LESS

. . . than non-weatherstripped windows by actual test. (University of Minnesota Institute of Technology Testing Laboratory.) Metal Weatherstrip effectiveness is actually greater than 6 for average or poorly fitted windows.

Reduction in Air Infiltration Through Windows Due to Weatherstripping (Unlocked—no storm sash)

Type of Fit	Par Infiltration* cfh/ft. of Crack	Non-Weatherstripped	Weatherstripped	Effectiveness†
Well	14.2	61	4.30	
Average	16.7	104	6.24	
Poorly	23.8	163	6.85	

*At a pressure of 0.20 inch of water (20.4 mph wind velocity).

†Ratio of non-weatherstripped to weatherstripped par-infiltration.

The above facts, plus the complete story on weatherstripping is presented in Bulletin No. 35—"Air Infiltration Through Weatherstripped and Non-Weatherstripped Windows," published by the University of Minnesota, Institute of Technology. The facts showing the economic value of weatherstrip are based on over-all research of climatic conditions in 12 selected cities in the U.S. covering a full range of weather conditions.

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reflects the care
you put into
your homes!



New homes that say, "Open for Inspection" or "For Sale," do not stay on the market very long when beautiful Novoply has been used here and there around the building.

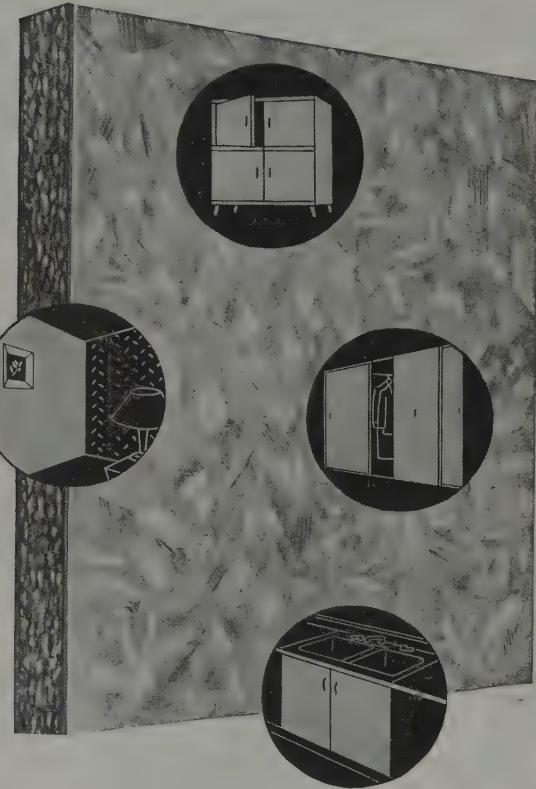
For versatile Novoply is a bit of a magician! It helps to make up an undecided home buyer's mind *in favor of your house*. And it sets off the spark that turns "lookers" into buyers, just like *that!* It reflects the care that has gone into the building of your houses.

So, consider Novoply in these ways:

First, Novoply's mosaic-wood-flake texture provides a *new kind* of beauty in good-looking natural colors; pine and redwood.

It combines a modern freshness with the traditional warmth of wood... making it *just* the material for exposed panels, for walls, screens, partitions, built-ins and fine furniture of many types.

Then consider its *flatness!* Novoply is remark-



ably warp-free, stays *permanently* flat. This makes it the number 1 material for many types of doors — especially sliding doors of closets, cupboards, cabinets and other interior uses.

Also, Novoply makes an ideal base for plastic laminates on counters and table tops.

And perhaps the most *surprising* thing about Novoply is its *low price!* This many-purpose material comes in 4'x8', 4'x6', 3'x8' and a wide range of smaller sizes in $\frac{3}{4}$ " thickness, also 4'x8' in $\frac{1}{2}$ " thickness. It can be easily worked by ordinary woodworking tools. Can be nailed, sawed, screwed, planed, drilled... stained, painted, veneered... or left natural.

Novoply is displayed in 60 United States Plywood and U.S.-Mengel Distribution units in principal cities. Or see this amazing material at your lumber dealer. Meanwhile, send the coupon for a free sample.



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World's Largest Plywood Organization

*Trade Mark Registered.

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UNITED STATES PLYWOOD CORPORATION

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Please send me a free sample of Novoply plus descriptive literature.

HH2-68

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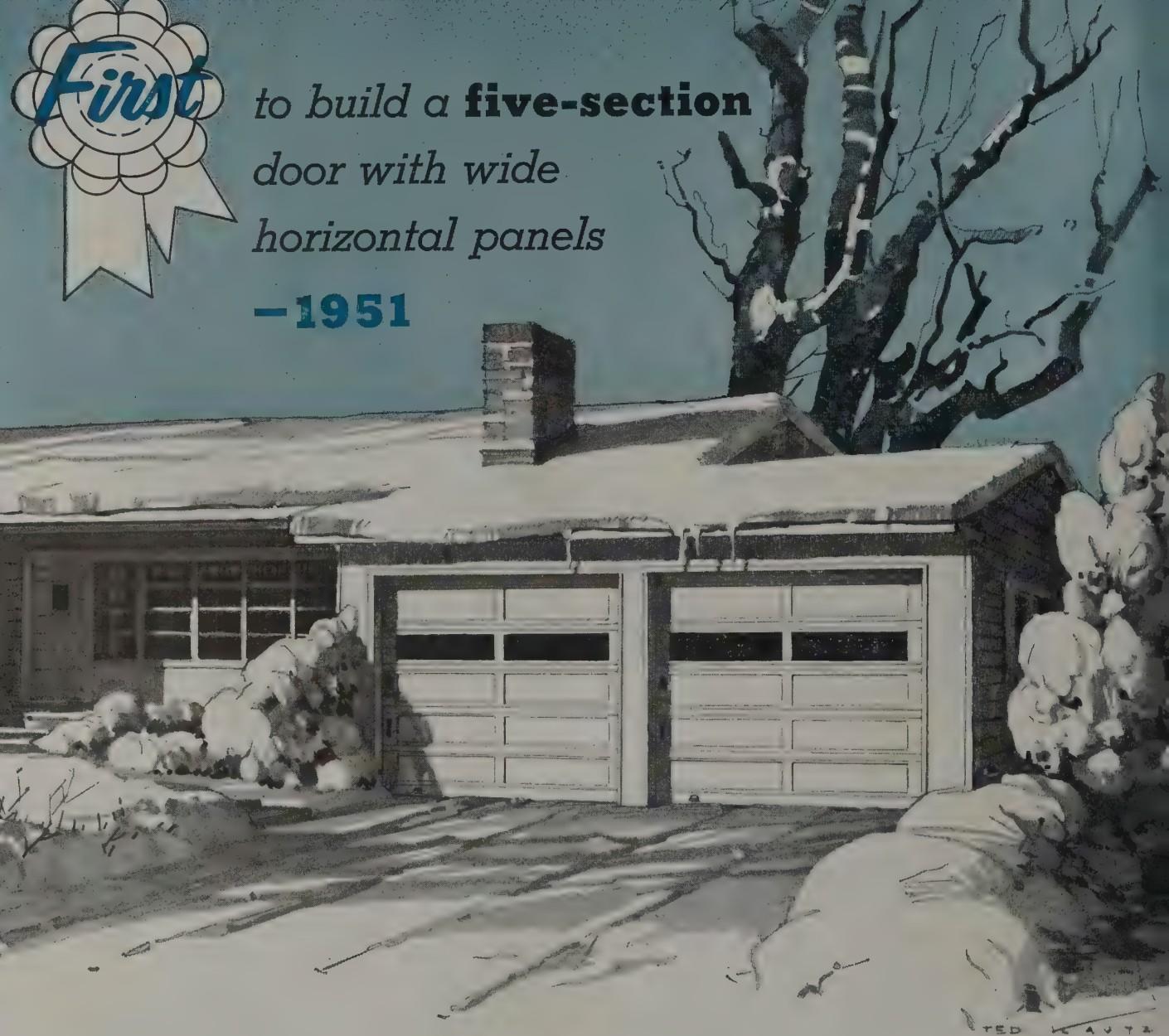
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to build a **five-section**
door with wide
horizontal panels

-1951



Rapid advancements in residential architecture called for a new and modern design of The "OVERHEAD DOOR"—to complement the ranch-type home, yet blend with every style of architecture.

True to tradition, our engineers produced a door with narrow sections and wide horizontal panels . . . with the same structural strength and the same blue-ribbon performance, always!

Only OVERHEAD DOOR CORPORATION
and its manufacturing divisions make

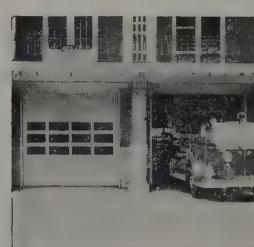
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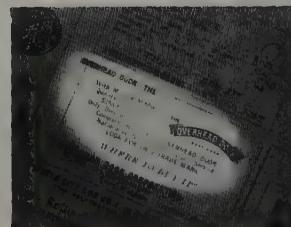
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Nashua, New Hampshire	Dallas, Texas	Oklahoma City, Oklahoma
Portland, Oregon	Glendale, California	

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The new design has been adapted to large doors for commercial and industrial structures, blending perfectly with modern architecture.

Look for this trade mark in the yellow pages of your telephone directory. It stands for—
More Than 30 Years of Quality and Leadership!



clean
and
true
and
bold!



143/18 Clusterlite—in many sizes



630E Hi-Lite Twin Reflector — Wall-Bracket or Pin-Up



623E Hi-Lite Reflector — Wall-Bracket or Pin-Up



261 Constellation—23 lights. Diameter 40". For round or flame bulbs.

632 Wall-Bracket or Pin-Up—with glass lens, perforated bowl



154/16 Domelite—Pin-up or Wall-Bracket



157/36 Domelite—Cluster of 3 bowls with lenses for up and down light. Domes in many sizes.

3105 Functional Modern—Flush ceiling fixture for halls, foyers, dining alcoves. Diameter 9".

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POLISHED or SATIN BRASS
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and in combinations.

LOOK at these fixtures. Note their striking contours, their adaptability to any decor. They are just a few examples of the perfection of form and function in Litecraft's line of contemporary incandescent fixtures.

These clean and true designs will do great credit to your boldest concepts... and at prices that please the most cost-conscious client.

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214 Finlandia — Raises and lowers to your touch. Diameter 17½". Handsomely perforated dome. Shielded bottom prevents glare.

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100 FIREPLACE IDEAS FREE

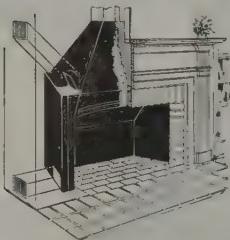
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Book also describes FYRO-PLACE—the only heat circulating steel form designed to make the mason's work easier. The finished fireplace will give more abundant heat and more satisfaction through the years.

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Please send me your free book of "100 Fireplace Ideas."

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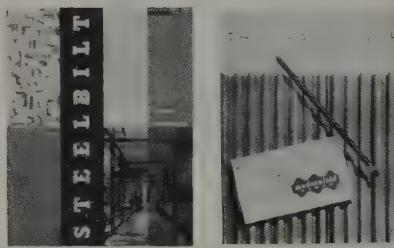
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TECHNICAL PUBLICATIONS

SLIDING DOORS AND WINDOWS. Steelbilt Doors and Windows. Steelbilt, Inc., 4801 E. Washington Blvd., Los Angeles 22, Calif. 6 pp. 8½" x 11"

To enable designers to evaluate the adaptability of Steelbilt's horizontal sliding glass doors and windows to specific design problems, this attractive booklet presents isometric drawings of the products' engineering features and construction details. (Full-scale details are available in a separate portfolio of looseleaf tracing sheets.) It also contains installation photos and general information on models and types.



PARTITIONS. The Spacesaver. New Castle Products, New Castle, Ind. 8 pp. 8½" x 11"

Applications, both usual and unusual, for Modernfold plastic-fabric covered folding doors and dividing walls are discussed and pictured in this new quarterly publication.

HARDWARE. Care, Adjustment and Maintenance of Your Russian Builders' Hardware. Russell & Erwin Div., The American Hardware Corp., New Britain, Conn. 48 pp. 5" x 8"

Answering some questions that builders have asked concerning minor adjustments of hardware, the booklet gives pointers on how to regulate and care for door closers and overhead door holders, tighten knobs, and lubricate butt hinges. Clear line drawings help explain the servicing measures.

PLASTIC PIPING. Triangle Plastic Pipe, Plastic Products Div., Triangle Conduit & Cable Co. Inc., New Brunswick, N.J. 16 pp. 8½" x 11½"

The brochure contains technical data on four types of plastic pipes: flexible, semirigid, rigid high impact and rigid polyvinyl chloride. Chemical and physical characteristics of each are summarized in tabular form.

TILE ADHESIVE. Ceramic Tile Adhesive No. 10. Minnesota Mining and Mfg. Co., Adhesives and Coatings Div., 411 Piquette Ave., Detroit 2, Mich. 4 pp. 8½" x 11"

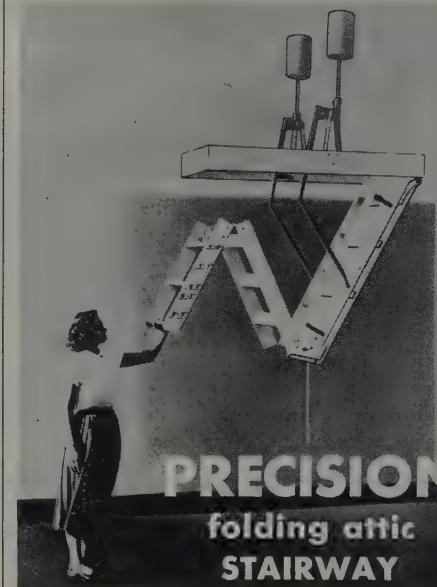
How to install ceramic tile quickly and inexpensively with 3M adhesive No. 10 is the subject of this concise instruction brochure. Short form specifications cover surface and tile preparation, wall and floor tile installations, cleanup methods and correct grouting procedure.

continued on p. 192

FIVE-YEAR WRITTEN GUARANTEE

furnished with each unit

No other STAIRWAY offers so much



5 exclusive features

1. Actuated by counterweights.
2. Operates on roller bearing which makes raising and lowering practically effortless.
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Easy to handle -- Easy to install. Shipped in 1 package assembled. Requires no attic space. No adjustments, no springs. Fits all ceilings from 7 feet to 9 feet 9 inches. (Runners graduated, all you do is measure from finished floor to finished ceiling and saw off runners at desired height.) Accepted by F.H.A. Listed in Sweets. Specified by leading architects. Sold by more than 12,000 dealers in U.S.A. and Canada.

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A BATHROOM THAT GROWS WITH THE FAMILY

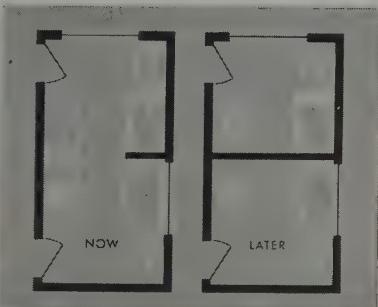
Another of 46 room plans from new Crane
Sketchbook of Ideas that make houses easier to sell



Raising money to buy a home and raising a family are two things that usually go-together. That's why you'll find that many of your customers are favorably influenced by ideas like this—a bathroom that grows with the family.

As the picture shows, there's a section at the rear that starts out as a nursery bath and includes a small Crane Lahoma tub that may be used later as a bath and shower combination. As the children grow up, another lavatory is set in the counter-top space already provided, a water closet goes where you now see the bathinette—then a simple partition, and there are two complete bathrooms instead of one!

This is just one of the 46 easily adaptable room plans illustrated and described in Crane's new Sketchbook of Ideas. The Sketchbook is part of Crane's new service to builders—affords an easy practical way of helping your customers visualize and approve new room arrangements. Also available are specific suggestions for arrangement and decoration of any room in the book. Ask your Crane Branch or Crane Wholesaler for full details.



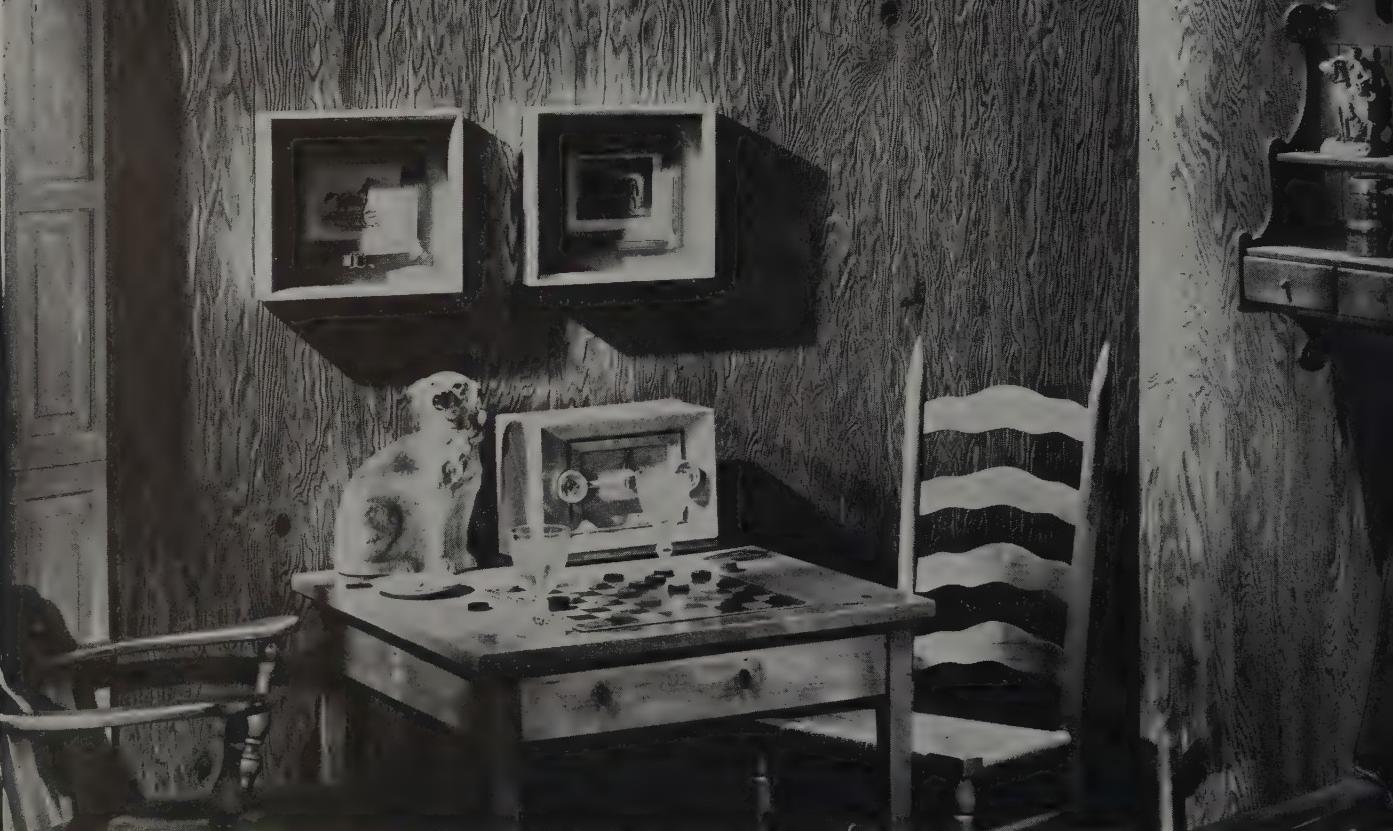
NOW—The bathroom as it looks when the family moves in.

LATER—How it becomes two bathrooms as the children grow up.

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VALVES • FITTINGS • PIPE
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WEDGEWOOD is easy
to install and finish



Sturdy cartons protect
WedgeWood from
breakage in storage and
handling . . . assure
you of clear, undam-
aged panels from fac-
tory to job-site.

Just Nail It Up



WedgeWood genuine wood
wall paneling comes in 4 x
8 ft. panels that nail right
to studs or furring strips.

Covers with First Coat



WedgeWood panels are
factory-sealed . . . need no
primer . . . before painting or
staining.

Wipe Second Color



Wipe off second coat of
contrasting color. Result—a
dramatic, two-tone harmony
of color and texture.

No other wall paneling offers such beauty at such saving

with beauty that sells and sells!

WEDGEWOOD

Georgia-Pacific's new textured wood wall paneling gives you powerful new sales appeal at low cost

With WedgeWood you can turn prospects into customers: give them style, beauty, texture, give them color . . . give them new decorative ideas . . . AND reduce your costs. WedgeWood adds distinction and charm to any home design or style . . . raises them far above the ordinary in the eyes of your prospects. WedgeWood can be used in full-room or one-wall treatments . . . gives you an important edge over

competitive builders in your area.

The swirling grain and rich, sculptured texture of WedgeWood lend themselves to dramatic two-tone color effects that are in complete accord with the sweeping trend to texture in decorating.

Let WedgeWood help you sell the next homes you build.



WedgeWood blends harmoniously with modern furniture, fabrics and accessories.

**WedgeWood brings you
limitless new styling
and color possibilities**



WedgeWood fits with timeless ease into traditional decor. Your customers will find their favorite style fits right with WedgeWood.

**How builders use WEDGEWOOD in occasional
or full-room treatments to create
exciting effects and dramatic interiors**



In an entrance hallway, WedgeWood paneling provides a warm welcome.



In a bedroom, WedgeWood creates a restful, relaxing atmosphere . . . hospitality and comfort in a guest room.



In a living room, WedgeWood's natural grain pattern adds style and beauty.

*Use this Background of Beauty as a Cost-Cutting Sales Feature.
See your Georgia-Pacific Representative or write to*



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a new American architecture . . . in PARKING GARAGE DESIGN

Since 1951, when 96 of our cities went into the parking business, more and more architects have been commissioned to add a new type of building—the parking garage—to the American cityscape.

This challenge to architects has great importance—as you'll see in the February issue of ARCHITECTURAL FORUM,

Forum's 22-page survey on garages rounds up the finest contributions to this new design field . . . shows you what surprising discoveries about parking problems were reported at a recent round table conference on traffic . . . why many buildings with built-in garages are making most of their income from parking fees . . . what type of garage brings lower construction costs-per-car-stall . . . where mechanical garages are preferable to ramp garages and vice versa . . . how garages are engineered for the greatest lightness and strength . . . and many other aspects of this expanding design field reported in full for the first time.

See the February architectural FORUM which also brings you

. . . Youth Study Center by Carroll, Grisdale & Van Aken
. . . new design for a bank by Carl Koch
. . . possibilities in space-frame construction
. . . review of 10 best postwar buildings
. . . and many other provocative design studies.

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All over the country
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CABINETS in COLOR
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Lift your houses out of the "ordinary run" with windows that add beauty and effective year 'round CLIMATE CONTROL at fingertip touch. Snug, tight, weatherstripped closure in cold weather (or for air conditioning) and full, wide opening for warm weather ventilation. And, at the same time, save money on installation labor costs.

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Yesterday's trend is becoming an avalanche. All over the country home buyers are asking for—even demanding—cabinets in color or natural wood. And leading builders are planning their kitchens to meet this demand.

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The new Kitchen Maid hardwood cabinets are widely recognized as being out in front in the swing to color. They are offered in any of six lovely decorators' colors, in white or in natural wood. In addition they have many exclusive features: distinctive Flo-Line styling, quiet aluminum drawers that won't chip or rust, guaranteed non-warping doors, swing-out corner shelves, fine furniture-type construction and up-to-the-minute accessories that are keyed to today's market. The Kitchen Maid distributor organization is the most experienced in the field. Dealers are well located and well trained to give valuable assistance. Why don't you choose Kitchen Maid for your next project?

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Please send booklet containing new kitchen layouts, planning suggestions and details of the Kitchen Maid line. I am an Architect Builder Dealer.

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Typical of the advanced engineering and performance of American Machines is the American Super 8 at right. Sands floors nearly twice as fast as standard machines . . . powerful 2 H.P. motor . . . variable drum speeds, 1600 to 2800 r.p.m. . . . variable drum pressures, 52 lb. to 103 lb., to meet all conditions in floors.

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DENVER BUILDERS HUTCHINSON AND CAREY

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"SCR brick"—the THRU-THE-WALL unit that builds solid brick homes for the cost of frame. Developed by the Structural Clay Products Research Foundation.



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**"It builds the best
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"'SCR brick' is the key—it satisfies peoples' basic desire for brick's lasting beauty, fire-safety and ease of maintenance—and its long, narrow face shape enhances the ground-hugging appearance of our new houses."



free booklet "HOW TO BUILD BRICK HOMES THAT SELL WITH THE SCR BRICK" gives full construction details. To get one, just write us on your own letterhead. Address: Dept. HH-2.

▲ Hutchinson Carey "SCR brick" homes vary in style from two-bedroom to four-bedroom models. All have attached garage, full height "Norman" brick fireplaces, clay tile sills, forced hot-water baseboard heat, large picture windows, and most have full basements.

*Reg. TM, SCPRF, Patents Pending



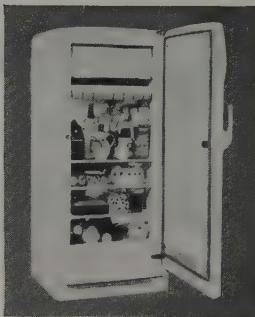
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Will '53 be like



New '53 General Electric Builders' Line—



G-E REFRIGERATORS

New models provide 20% to 58% more food-storage space per square foot of floor space than comparable older models.



G-E RANGES

The new full-sized "Beacon" supplements other low-priced G-E models—a model with special appeal to builders.



G-E ELECTRIC SINK-DISHWASHER

Builders' models basically same as de luxe models, but modified to make them more attractive pricewise.

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Equipment,
too!

New Automatic Washer
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Clothes Dryer. Also:
Wringer Washers and Toe-
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this for you?

The photograph at the left was snapped one fine Sunday afternoon last Spring, when hundreds of cars swarmed about a model home equipped with a complete G-E Kitchen-Laundry. Within the next few days the development of 47 houses was completely sold.

'53 can be like that for you. And we don't think we're painting an over-optimistic picture, either!

Why? Because all during 1952, and 1951, and 1950—and before that—builders who have installed General Electric Kitchen and Laundry equipment in their houses have reported just such phenom-

enal results as indicated at right.

Did you know this?

A G-E Kitchen-Laundry can be built right into your \$10,000 or \$12,000 houses—and the monthly cost to the homeowner may be no more than a regular telephone bill because under modern home-financing the cost of these dependable appliances can usually be included right in the regular mortgage.

Start selling your houses faster, just as many other builders are doing from coast to coast. See your local G-E distributor or write to General Electric Company, Louisville 2, Kentucky.

You can put your confidence in—

GENERAL ELECTRIC



all matched, all dependable appliances!



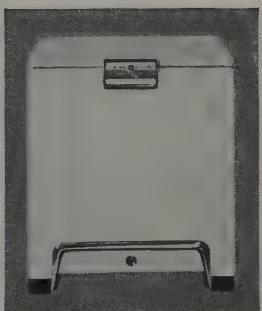
G-E DISPOSALL®

General Electric is first in the industry with 5-year protection plan. A real sales point in helping to sell houses.



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All connections located at top of tank to save time and installation costs. Other models up to 82-gal. capacity.



G-E FOOD FREEZERS

New 7-cu-ft freezer above occupies only slightly more floor space than 4-cu-ft models. Also: new 14-cu-ft upright.



Sold 114. Messrs. Rosenberg and Beneson erected 114 houses in Bethel, Conn. and sold the entire development before it was completed.



Sold 47. Mr. R. O. Smithson Jr. developed Conant Village near Boston, Mass. and sold 47 General Electric equipped houses within a few days.



Sold 1,000. Mr. J. T. Broyhill's firm sold 1,000 houses in the \$10,000 to \$13,905 price class in the Wash., D. C. area within the last few years.

New G-E Steel Base and Wall Cabinets

Designed to blend with new matched line of G-E appliances. White baked-on enamel. Rust-resistant steel.



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Wood windows harmonize with home furnishings.
Wood, itself, is an excellent insulator, too.

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Air conditioning field tests, a mine

of practical information for architects and builders

Last summer the National Warm Air Heating & Air Conditioning Assn. conducted the first extensive tests of various kinds of cooling systems in actual houses. Although these test results have not been fully evaluated some revealing facts are already evident.

Results indicate that an effective vapor barrier is essential in crawl-space houses, conventional ductwork must be carefully designed and installed for cooling and new ways of air distribution may offer substantial cost savings in home air conditioning.

These tests began on a hot Monday morning last June when a mobile laboratory truck backed up to the front door of an air-conditioned house in Ft. Worth and two men unloaded 400 lbs. of elaborate electrical equipment. After rigging their apparatus throughout the house with more wire than a TV studio the men stayed until Friday to get 24-hr.-a-day records of changing temperature and humidity.

Supervised by veteran Engineer C. W. Nessell (chairman of the association's Field Investigating Committee), this procedure was repeated all summer long in a variety of selected houses in Dallas, Houston and Tulsa. Test conditions were ideal: the scorching summer-long heat wave was one of the worst ever; every air-conditioning system tested was operating at peak capacity.



Mobile laboratory crew found air-conditioning engineers baffled by an unusual moisture condition in this Ft. Worth home.

Humidity problems

In Ft. Worth, critical moisture conditions were encountered in two crawl-space houses. In the first, a sprawling \$150,000 ranch house, inside temperature was down to 76° but relative humidity was a sticky 80%—more humid than outside. In the much smaller second house, temperature was under 80° but relative humidity was 82%. ("We can't live here, it's too damp," said the homeowner.) In both cases air conditioning had been installed by reliable firms and the firms' engineers were baffled.

After an investigation, mud and water were found under both houses (partly from lawn sprinklers). Despite tar paper moisture barriers under the finished floors of both houses, the field investigators suspected that ground moisture was soaking into the houses. So they tried lapping heavy 55 lb. roll roofing over the ground in each crawl space. (They did not tack roll roofing to the underside of the floor joists because this would have prevented natural ventilation under the floor where some moisture is unavoidable.)

Two weeks later both houses had dried out and their relative humidities had dropped under 50%. And where both had had dangerously wet wood conditions before, the structures were now safely dry. Moral for builders: low permeability roll roofing as recommended by HHFA* is a much more effective vapor barrier than lighter papers, and a barrier on the ground is apparently the answer for crawl-space houses.

Ductwork is vital

Beside moisture, the tests indicate that other major troubles result from badly designed and undersized ducts. For instance, ducts designed only for heating were found too small to deliver the larger quantities of air needed to cool the same houses. (In



Field Investigators stayed for a week at this Houston house

the North, however, it is believed that liberally designed heating ducts are big enough to handle summer cooling also.)

In one house Nessell found poorly insulated metal cooling ducts running through a 130° attic. Beside the loss of cooling to attic heat the lack of proper insulation caused condensation to drip continually from the ducts.

One house tested has a well designed, high-velocity, 3½" duct system that worked satisfactorily for cooling. Together with higher air speeds, these small duct systems use special blower-type registers somewhat similar to high-velocity air conditioning in office buildings. (See p. 124, July, '52 H&H.)

Other findings

Tests in another house indicate that air supply from floor registers is as effective as from high wall outlets. In this case cool air was supplied through the same floor registers used for perimeter heating. (Many engineers say that overhead duct-work is needed for good cooling, while duplicate under-floor ducts are also needed for efficient heating in basementless houses.) Once proved, this method—perimeter ducts only—will save the extra cost of overhead ducts for year-round air-conditioning systems.

Savings in ducts may also result because of findings where cooling was by the crawl-space method used in heating. Here cool air was discharged from the air conditioner directly into the crawl space and allowed to rise, under pressure, into the living areas through floor registers located at the outside walls. Practically no ductwork is needed. But before using this system builders are cautioned to wait for specific recommendations from the association.

A complete report of Nessell's investigation will be published when all data has been evaluated by an impartial engineer. Meanwhile the association is lining up 20 other houses in the South for study next year.

* In the October issue of *Housing Research* HHFA reports that light 15 lb. paper in contact with damp soil is destroyed by fungi in a few years.

Being able to wash both sides of your windows from inside the house is a great convenience. Modern R.O.W.s can not only be washed indoors, but can, in addition, be painted in the basement or taken to the hardware store for glass replacement.

Spring pressure construction insures snug-fit weather protection during all seasons of the year.

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Figure it BOTH ways

1. cost-in-place
of lumber
roof sheathing

2. cost-in-place
of PlyScord
roof sheathing



HERE'S paper and pencil proof that you can cut costs with PlyScord—and get a far better job, too. Remember, the full story of construction costs isn't shown on the bill of materials. It's the *applied cost* that counts. That's why you can save up to \$2.50—and more—per square with PlyScord. Prove it yourself. Figure it both ways on the chart below.

Estimating Chart to Cover 1,000 Sq. Ft. of Roof Area

Data Developed from Walker's "The Building Estimators' Reference Book"

PLYSCORD*	RATE	TOTAL	LUMBER	RATE	TOTAL
1,056 sq. ft. 3/8" or 5/16"			1,200 ft. b.m. 1x8 shiplap		
Nails 6d-12 lbs.			Nails 8d-20 lbs.		
Carpenter 6 Hours			Carpenter 11 Hours		
Helper 3 Hours			Helper 5 Hours		

TOTAL COST IN PLACE..... TOTAL COST IN PLACE.....

*FHA now accepts 3/8" PlyScord over rafters 24" o.c., 5/16" PlyScord over rafters 16" o.c. Write Douglas Fir Plywood Association, Tacoma, Wash. for application data.



This registered trademark identifies PlyScord—the economical construction grade of interior fir plywood bonded with highly moisture resistant glue. This stamp on panel is your assurance of tested quality.



© Douglas Fir Plywood Assn., (DFPA)



In test above 3/8" PlyScord on 24" span easily withstands 500 lb. concentrated load. Plywood's great two-way strength means economy because relatively thin panels can be used—3/8" PlyScord on rafters 24" o.c. easily withstands uniform load of 30 lbs. p.s.f., 5/16" on 16" span takes uniform load of 40 lbs. p.s.f. Both constructions now FHA accepted.



PlyScord holds nails well. Tests on roofs exposed 2 years show minimum force of 85 lbs. required to pull cedar shingle from 5/16" PlyScord. In case of asphalt shingles, roofing is invariably torn from PlyScord without loosening nails. Other tests and actual experience shows 5/16" PlyScord holds nails as well or better than 1" soft pine boards.



Roofing materials go down faster over solid PlyScord sheathing. Factory seasoning assures dimensional stability. PlyScord won't shrink or swell like boards to damage roofing. Roofing lays flat, stays flat. PlyScord roof sheathing adds strength and rigidity, acts as a structural diaphragm in resisting loads caused by high winds, earthquakes.



■ **As a businessman**, he buys or influences the buying for his company of goods and services of many kinds from many different sources.

■ **As a family man**, he enjoys an upper-income manner of living . . . both at home and within the circle of his friends. He and his wife, because their interests are broader and their means way above the national average, are consistent best customers for better products and services.

The man in two positions to buy!



Q.E.D.

Successful businessmen-family heads like this, with their wives and families, comprise in large part the audience of TIME.

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Modern building needs stress the importance of saving construction time, holding down over-all costs *without* sacrificing permanence, safety or beauty in design.

Because of their versatility and adaptability, J&L Junior Beams go far toward meeting the demands of today's builders. They cost less to buy and less to erect. Lightweight Junior beams may be easily raised, placed and bolted directly into position with a minimum of labor and manpower. This fast, economical construction helps hold building costs low.

In addition to their EASE OF INSTALLATION, you'll be interested in other important design

and construction features of J&L Junior Beams. They are RIGID, VIBRATION RESISTANT, SHRINK PROOF, FIREPROOF, VERMIN PROOF, and have the LOWEST DEFLECTION FACTOR OF ANY STRUCTURAL SECTION OF EQUIVALENT WEIGHT.

Why not write today for our new booklet covering J&L Junior Beams and Channels? It shows how Junior Beams are used as floor joists and roof purlins, with loading and spacing tables for various spans.

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Attention Builders

We have openings in a number of localities for qualified builders. If you have sound financial resources and an established reputation for building well-designed, high quality homes, this is an exceptional opportunity for you. Write today on your letterhead.



FLOORING. Inexpensive Luxuries by Hako, Bulletin AT-200. Hachmeister, Inc., Pittsburgh 30, Pa., 8 pp. 8½" x 11"

All 30 marble grain patterns and nine spatter effects available in Hako asphalt tile are reproduced in color in this booklet. Easy installation and upkeep, grease resistance, and initial low cost are some of the features pointed out for the floor covering.

BATHROOM FIXTURES. Briggs Beautyware, Briggs Mfg. Co., Plumbing Ware Div., 3001 Miller Ave., Detroit 11, Mich. 28 pp. 8½" x 11"

Concentrated on these 28 pages are details, specifications and pictures of the *Beautyware* line of porcelain enameled steel bathtubs, lavatories and sinks; vitreous china lavatories; closet combinations, urinals and bidets; and brass fittings.

MASONRY COATINGS. Stucco Finishes Made with Pliolite S-5. Chemical Div., Goodyear Tire & Rubber Co., Akron 16, Ohio. 18 pp. 8½" x 11"

Uses of a synthetic resin in formulating stucco paints are explained in this manual. Called *Pliolite S-5*, the thermoplastic rubber compound is claimed to be especially advantageous in paints made for masonry surfaces because of its ability to withstand the alkalies in cement.

SIDING. Masonite Siding. Masonite Corp., 111 W. Washington St., Chicago 2, Ill. 4 pp. 8½" x 11"

Describing methods of applying *Masonite* hardboard siding, the bulletin provides sketches and concise text on preliminary work, attachment of the *Shadowline* wood strip corner treatment and proper finishing.

ROOFING. Ludowici Roofing Tiles, Ludowici-Celadon Co., 75 E. Wacker Dr., Chicago 1, Ill. 8 pp. 8½" x 11"

This full-color brochure presents useful information on tile roofs for homes in an attractive and readable manner.

HEATING. The Flexicore Split System of Warm Air Panel Heating. The Flexicore Co., Inc., 1932 E. Monument Ave., Dayton 2, Ohio. 6 pp. 8½" x 11"

Illustrated by diagrams, the folder explains two simple heating systems which utilize the hollow cores in *Flexicore* precast concrete slabs to combine benefits of circulated warm air with those of a radiant panel.

DRAINAGE. Bosco Perforated Drain Tile. Bowerston Shale Co., Bowerston, Ohio. 4 pp. 8½" x 11"

Detailing proper installation of perforated tile for basement and foundation drainage as well as septic tank systems, this informative folder contains diagrams of home drainage plans and an effective septic tank disposal layout.



For Pennies a Day! A Proven Convenience for HOMEOWNERS!

Thousands of CRANE "300" garage door operators have been installed all over the nation. The CRANE "300" is the most convenient to install on garage doors.

CRANE remote control operators help eliminate bad weather annoyances and

**AN
IMPORTANT PLUS
FEATURE THAT
SELLS ANY
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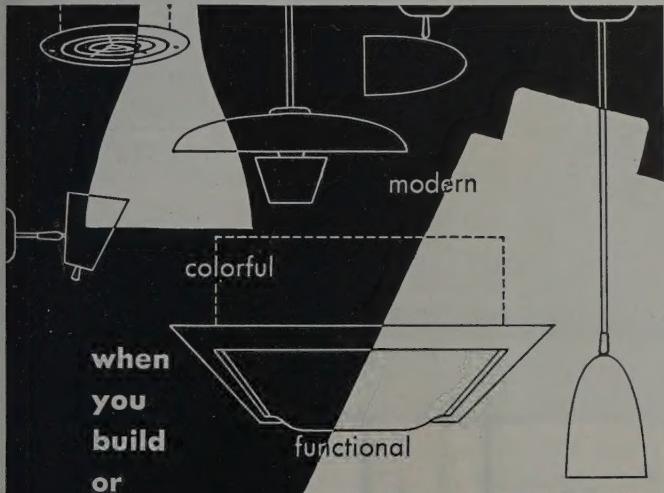
H. W. CRANE CO.

FREE

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Chicago 7, Illinois

Sirs: Without obligation to me, please send complete details on the Crane "300" Remote Control Operator. Bulletin. HH-2.

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contemporary
LIGHTING
for any installation



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Sliding doors

that WORK

with the greatest of ease!

...and SELL so easily, too!

**Pre-packaged, Ready-to-Install
NOVOPLY* SLIDING DOOR UNITS
can't warp, swell, rattle or stick!**

Home-owners don't need to be *muscle men* to open and shut Novoply Sliding Door Units! They work so easily that even a child can operate them.

These units are made of Novoply, the flattest paneling ever produced. And they are *precision-built* to assure simple installation, easy adjustment and *permanently smooth*, trouble-free service.

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The Novoply doors are $\frac{3}{8}$ " thick and are *guaranteed* not to warp more than $\frac{1}{8}$ ", if properly installed.

The beautiful wood-mosaic beauty of the paneling can be preserved with a simple wax finish. Or it can be readily stained or painted.

From Houses to Trailers! What a ready-made market awaits you for these Novoply Sliding Door Units. They're wanted for new and remodeled homes . . . for apartments . . . for office buildings . . . schools . . . hospitals . . . motels. Yes, *trailers* make a profitable market, too!

Our warehouses carry them in stock now. See them today or send the coupon for complete information.

*Trade Mark Registered. Patented; other patents pending.

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55 West 44th Street, New York 36, N. Y.

Please send me further information, dimensions, etc., on Novoply Sliding Door Units.

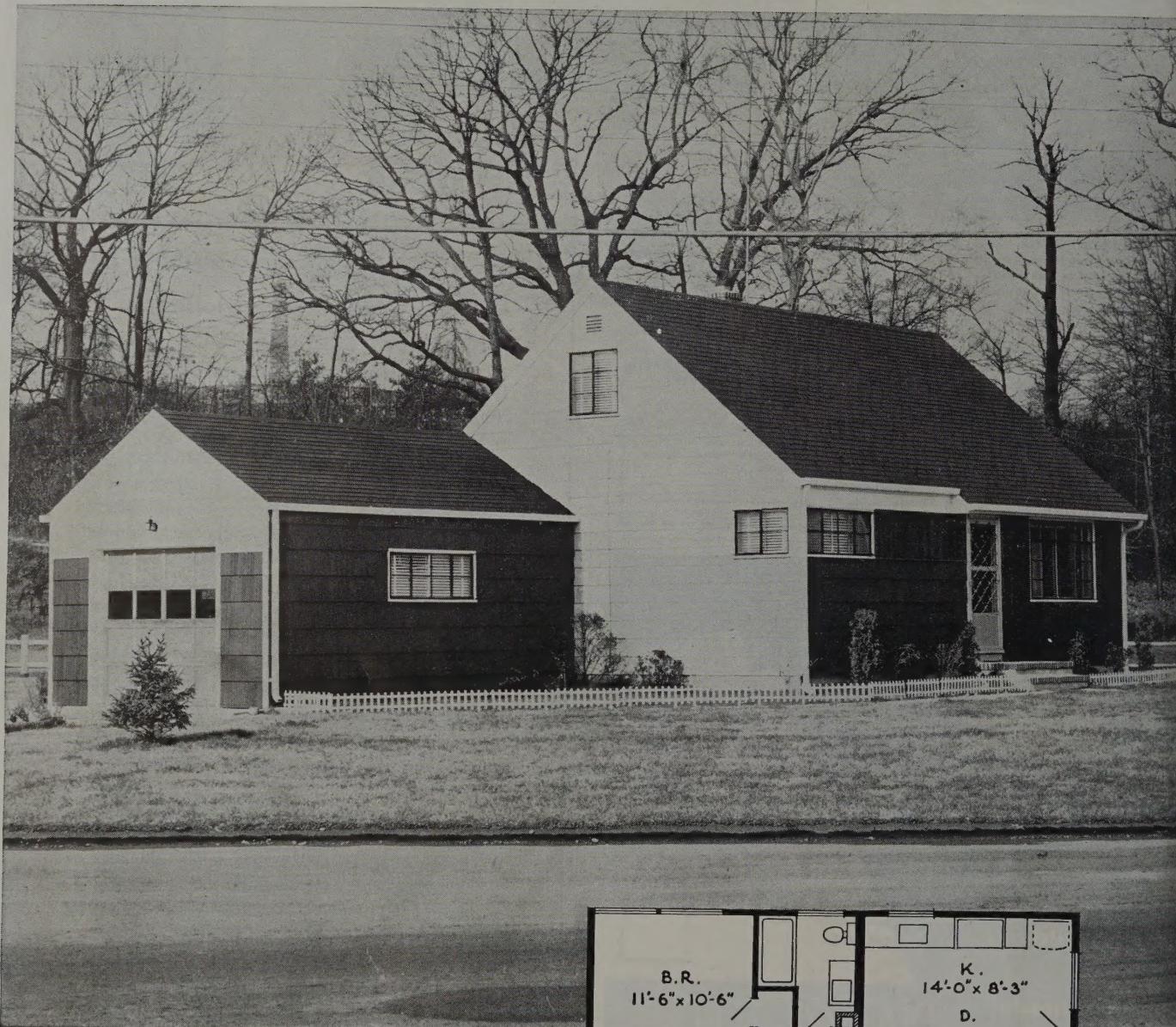
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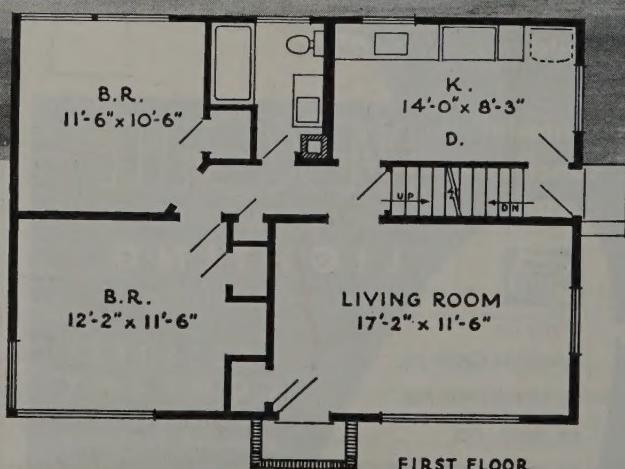
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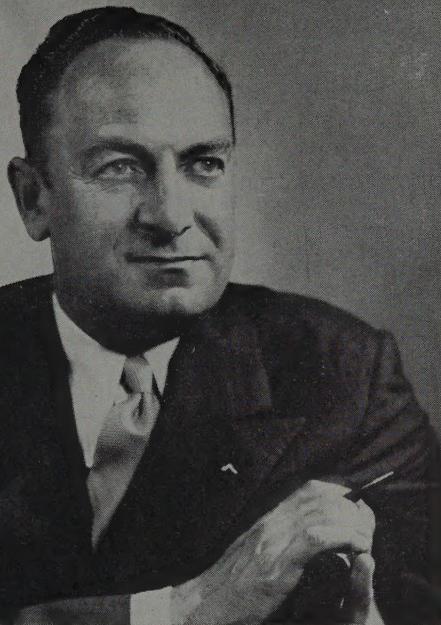
Number 5 of a series:

BUILDERS OF AMERICA . . .



The 4½-room home has full basement and expansion attic. Price: \$10,800; garage extra. This new 1953 model is available in five exterior variations, on landscaped plots of 65' x 100' or larger, in a pleasant countryside setting.





Emanuel M. Spiegel

Emanuel M. Spiegel gave up a career in law to devote his energy and talents to the building field. He has achieved notable success—both as a builder of residential communities and a leader in the building industry. His present 400-home Rutgers Village colony in New Brunswick, N. J., is one of the largest in the state. He is the newly elected president of the National Association of Home Builders.

"In the building field, a name can inspire immediate respect—and faith in people who are looking over a house. It may be the name of a building product or material, a type of equipment, or household appliance. But it is a name that, through the power of national advertising, has impressed its quality and dependability upon home-seekers—a name that has led the builder to install the product in the first place. This recognition and respect provides a real competitive advantage and gives a tremendous lift to sales."

National advertising that appears in LIFE reaches a weekly audience of 11,880,000 households across the nation. In the course of 13 weekly issues, LIFE reaches 25,640,000 households—or more than 60% of the entire U.S.*

These LIFE households represent the better half of your market, too. In 13 issues, LIFE

reaches 86% of all the households in America with incomes over \$7,000. And more than 58% of LIFE-reading households own their own homes.*

When your name and your products are advertised in America's biggest *big* magazine, you're selling to the world's largest and most receptive magazine audience.

*Figures above are from *A Study of the Household Accumulative Audience of LIFE (1952)*, by Alfred Politz Research, Inc. A LIFE-reading household is one in which one or more of the adult members reads one or more of 13 issues.



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